

# LEGISLATIVE COUNSEL

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2d Session }

SENATE

{ REPORT  
{ No. 91-1016

AUTHORIZING APPROPRIATIONS FOR FISCAL YEAR 1971 FOR  
MILITARY PROCUREMENT, RESEARCH AND DEVELOPMENT,  
FOR THE CONSTRUCTION OF FACILITIES FOR THE SAFEGUARD  
ANTI-BALLISTIC MISSILE SYSTEM, RESERVE COMPONENT  
STRENGTH, AND FOR OTHER PURPOSES

July 14, 1970.—Ordered to be printed

Mr. STENNIS, from the Committee on Armed Services,  
submitted the following

## REPORT

together with  
INDIVIDUAL VIEWS

[To accompany H.R. 17123]

The Committee on Armed Services to which was referred the bill (H.R. 17123) to authorize appropriations during the fiscal year 1971 for procurement of aircraft, missiles, naval vessels, and tracked combat vehicles, and other weapons, and research, development, test, and evaluation for the Armed Forces, and to prescribe the authorized personnel strength of the Selected Reserve of each Reserve component of the Armed Forces, and for other purposes, having considered the same, reports favorably thereon with amendments and recommends that the bill, as amended, do pass.

## COMMITTEE AMENDMENTS

The Committee amended the bill by striking all after the enacting clause and substituting a new bill reflecting all changes recommended by the Committee to the legislation as passed by the House.

The title of the bill is amended to reflect the inclusion of the military construction authority for the SAFEGUARD anti-ballistic missile system.

(1)

#### PURPOSE OF THE BILL

The bill would:

- (1) authorize appropriations during fiscal year 1971 for (a) major weapons procurement and (b) research, development, test, and evaluation by the Department of Defense;
- (2) provide military construction authority for the facilities in connection with the SAFEGUARD anti-ballistic missile system;
- (3) continue with one clarification the authority for merging military assistance financing for South Vietnam and other free world forces and local forces in Laos and Thailand, with the funding of the Department of Defense;
- (4) authorize the personnel strengths for fiscal year 1971 for the Selected Reserve of each of the Reserve components of the Armed Forces;
- (5) impose certain limitations with regard to specific procurement actions, provide certain additional legislative authorities, and for other purposes.

The bill proposes to authorize appropriations totaling \$19,242,889,000. Of this total \$11,892,389,000 is for procurement of aircraft, missiles, naval vessels, and tracked combat vehicles; \$7,016,500,000 is for research, development, test, and evaluation; and \$334,000,000 is for military construction authority for the SAFEGUARD anti-ballistic missile system.

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#### RELATIONSHIP OF AUTHORIZATION TO DEPARTMENT OF DEFENSE APPROPRIATIONS

The \$19 billion in authorization of appropriations in this bill would provide only a part, but an important part, of the \$71.2 billion in new obligational authority requested for Department of Defense programs in the President's budget of February 2, 1970.

Only a portion of the appropriations to the Department of Defense requires an annual authorization. Appropriations for military personnel operations and maintenance, and a part of the procurement are made on the basis of continuing authorizations. However, section 412(b) of Public Law 86-149 as amended by Public Law 87-436, Public Law 88-174, and Public Law 89-37 require annual authorization of appropriations for (1) procurement of aircraft, missiles, naval vessels, and tracked combat vehicles; and (2) research, development, test, and evaluation.

Public Law 91-121, passed last year, added a new category of "Other Weapons" to the list of procurements requiring prior authorization. This bill would provide authorization to support appropriations for these functions.

It should be noted that elsewhere in the bill the Committee has added language providing that beginning in fiscal year 1972 an annual authorization will be required for the appropriation of funds for procurement of naval torpedoes.

#### DETAILED SUMMARY OF AUTHORIZATION LEGISLATION

For the functions covered by this bill the following tabulation compares (1) the amounts authorized and appropriated for fiscal year 1970; (2) amounts requested by the Department of Defense for fiscal year 1971; (3) amounts approved by the House; and (4) amounts recommended by the Senate Committee.

There is printed as a part of the appendix of this report a summary of the authorization request to reflect the Committee actions by military departments as well as a chart showing congressional action on authorization requests from fiscal year 1964 through the present time.

COMPARATIVE COST TOTALS OF MAJOR ELEMENTS OF BILL

DEPARTMENT OF DEFENSE—FISCAL YEAR 1971

[In thousands of dollars]

	Major components					House		Senate Armed Services Committee	
	Total amount of fiscal year 1971 program	Less available financing	NOA requested authorization	Prior programs to be justified	Total authorization request	Change from request	Authorized	Change from House	Recommended amount
Aircraft.....	6,327,200	-265,600	6,061,600	97,300	6,158,900	-97,300	6,061,600	-206,300	5,855,300
Missiles.....	3,669,800	-49,500	3,620,300	29,500	3,649,800	-83,700	3,566,100	-109,900	3,456,200
Naval vessels.....	2,578,900		2,578,900	150,000	2,728,900	+285,000	3,013,900	-737,000	2,276,900
Tracked combat vehicles.....	254,900		254,900	1,000	255,900	-1,000	254,900	-25,300	229,600
Other weapons.....	75,389		75,389	1,000	76,389	-1,000	75,389	-1,000	74,389
Procurement total.....	12,906,189	-315,100	12,591,089	278,800	12,869,889	+102,000	12,971,889	-1,079,500	11,892,389
R.D.T. & E.....	7,345,600		7,345,600	56,000	7,401,600	-136,000	7,265,600	-249,100	7,016,500
DOD total Procurement and R.D.T. & E.....	20,251,789	-315,100	19,936,689	334,800	20,271,489	-34,000	20,237,489	-1,328,600	18,908,889
Military construction, SAFEGUARD.....	325,200		325,200		325,200		325,200		325,200
Family housing, SAFEGUARD.....	8,800		8,800		8,800		8,800		8,800
Grand total.....	20,585,789	-315,100	20,270,689	334,800	20,605,489	-34,000	20,571,489	-1,328,600	19,242,889

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## SUMMARY BY MAJOR CATEGORY—ARMY, NAVY, AIR FORCE, AND DEFENSE AGENCIES

[In thousands of dollars]

Procurement	Authorized 1970	Appropriated 1970	Prior year programs to be reauthor- ized (included in total re- quested 1971)	Total re- quested 1971	House		Senate Armed Services Committee	
					Change from request	Authorized	Change from House	Recommended amount
<b>Aircraft:</b>								
Army.....	570,400	554,400	(2,400)	296,900	-2,400	294,500	-2,400	292,100
Navy and Marine Corps.....	2,391,200	1,826,200	(35,500)	2,487,700	-35,500	2,452,200	-114,500	2,337,700
Air Force.....	3,965,700	3,730,800	(59,400)	3,374,300	-59,400	3,314,900	-89,400	3,225,500
Subtotal.....	6,927,300	6,111,400	(97,300)	6,158,900	-97,300	6,061,600	-206,300	5,855,300
<b>Missiles:</b>								
Army.....	880,460	831,900	(8,000)	1,094,600	-8,000	1,086,600	-55,000	1,031,600
Navy.....	851,300	818,800	(7,500)	983,000	-36,400	946,600	-14,200	932,400
Marine Corps.....	20,100	3,400		27,600		27,600	-14,800	12,800
Air Force.....	1,486,400	1,448,100	(14,000)	1,544,600	-39,300	1,505,300	-25,900	1,479,400
Subtotal.....	3,238,260	3,102,200	(29,500)	3,649,800	-83,700	3,566,100	-109,900	3,456,200
<b>Naval vessels: Navy</b>	<b>2,983,200</b>	<b>2,490,300</b>	<b>(150,000)</b>	<b>2,728,900</b>	<b>+285,000</b>	<b>3,013,900</b>	<b>-737,600</b>	<b>2,276,300</b>
<b>Tracked combat vehicles:</b>								
Army.....	228,000	201,100	(1,000)	207,200	-1,000	206,200	-24,000	182,200
Marine Corps.....	37,700	37,700		48,700		48,700	-1,300	47,400
Subtotal.....	265,700	238,800	(1,000)	255,900	-1,000	254,900	-25,300	229,600
<b>Other weapons:</b>								
Army.....			(1,000)	69,200	-1,000	68,200	-1,000	67,200
Navy.....				2,789		2,789		2,789
Marine Corps.....				4,400		4,400		4,400
Subtotal.....	(1)	(1)	(1,000)	76,389	-1,000	75,389	-1,000	74,389
<b>Total procurement.....</b>	<b>13,414,460</b>	<b>11,942,700</b>	<b>(278,800)</b>	<b>12,869,689</b>	<b>+102,000</b>	<b>12,971,889</b>	<b>-1,079,500</b>	<b>11,892,389</b>
<b>Research, development, test, and evaluation:</b>								
Army.....	1,646,055	1,596,820	(18,000)	1,735,900	-88,000	1,647,900	-38,700	1,609,200
Navy (including Marine Corps).....	1,968,235	2,186,400	(15,000)	2,212,300	-15,000	2,197,300	-3,000	2,194,300
Air Force.....	3,156,552	3,060,600	(18,000)	2,927,700	-18,000	2,909,700	-191,700	2,718,000
Defense agencies.....	450,200	450,000	(5,000)	475,700	-15,000	460,700	-15,700	445,000
Emergency fund.....	75,000	75,000		50,000		50,000		50,000
Total, R.D.T. & E.....	7,296,042	7,368,820	(56,000)	7,401,600	-136,000	7,265,600	-249,100	7,016,500
<b>Total Procurement and R.D.T. &amp; E.....</b>	<b>20,710,502</b>	<b>19,311,520</b>	<b>(334,800)</b>	<b>20,271,489</b>	<b>-34,000</b>	<b>20,237,489</b>	<b>-1,328,600</b>	<b>18,908,889</b>
<b>Military construction, SAFEGUARD.....</b>	<b>12,700</b>	<b>12,700</b>		<b>325,200</b>		<b>325,200</b>		<b>325,200</b>
<b>Family housing, SAFEGUARD.....</b>				<b>8,800</b>		<b>8,800</b>		<b>8,800</b>
<b>Grand total.....</b>	<b>20,723,202</b>	<b>19,324,220</b>	<b>(334,800)</b>	<b>20,605,489</b>	<b>-34,000</b>	<b>20,571,489</b>	<b>-1,328,600</b>	<b>19,242,889</b>

1 Authorization for other weapons not required prior to fiscal year 1971.

2 Of this amount, \$350,000,000 to be derived by transfer from stock funds.



MAJOR FUNDING CHANGES TO HOUSE BILL BY SENATE COMMITTEE

The Committee report discusses in detail all of the various actions and changes recommended by the Committee on all aspects of the bill. Set forth below is a list summarizing the significant funding changes recommended by the Committee to the bill as passed by the House.

(1) reduction of \$334.8 million in new obligational authority in recognition of prior appropriations which will be available in fiscal year 1971

(2) deletion of funds totaling \$435 million for five Naval vessels added by the House and not contained in the budget request

(3) deletion of funds in the amount of \$152 million for lead items for the third *Nimitz* class carrier, CVAN-70

(4) deletion of funds totaling \$51.8 million for the improved HAWK missile

(5) deletion of funds totaling \$30 million for the International Fighter

(6) deletion of further funding totaling \$23 million for the M60A1E2 tank

(7) deletion of funds totaling \$10 million for site preparation for area defense sites for the SAFEGUARD anti-ballistic missile system together with statutory language precluding the use of funds for area sites

(8) reduction of R&D funds by \$50 million (from \$100 million to \$50 million) for the B-1 advanced manned strategic bomber

(9) deletion of further R&D funding totaling \$17.6 million for the Cheyenne helicopter

(10) deletion of further funding totaling \$33.6 million for the subsonic cruise armed decoy

(11) reduction of funding totaling \$20 million for the advanced ballistic missile defense program (from \$158 million to \$138 million)

(12) deletion totaling \$15.7 million for Project MALLARD which relates to a cooperative international communications development

(13) reduction of funding totaling \$27 million (from \$77 million to \$50 million) for MINUTEMAN rebasing program

(14) reduction of R&D funding totaling \$15 million (from \$89.3 million to \$74.3 million) for the SAM-D (anti-aircraft missile system)

LANGUAGE CHANGES

*Committee Language Deletions*

The Committee recommended deletion of the following proposed statutory provisions:

(1) Language which would have precluded the obligation of any ship construction funds until a recommendation has been made by the National Security Council regarding the CVAN-70 program.

(2) The requirement that \$600 million from fiscal year 1971 funds in Naval ship construction and conversion funds be expended in Naval shipyards.

(3) Language which would have required the DD-963 destroyer procurement program to utilize the facilities of at least two shipyards.

(4) The prohibition of the obligation of funds for the M-16 rifle unless the Secretary of the Army maintains at least three active production sources for the weapon.

(5) Language prohibiting the use of Defense funds in institutions of higher learning where recruiting personnel are being barred from the premises as determined by the Secretary of Defense with the stipulation that this prohibition would not apply where the Secretary of Defense determines that a continuation or renewal of a previous grant to the institution will make a significant contribution to the Defense effort.

*Committee Language Additions*

The Committee added to the House version the following language and other changes to the bill:

(1) For the purpose of restricting the SAFEGUARD anti-ballistic missile program to the defense of the nation's strategic deterrent, language was added:

(a) restricting funds for additional sites for the initial deployment of SAFEGUARD to Whiteman Air Force Base;

(b) providing authority for advance preparation funding only for the Francis E. Warren Air Force Base; and

(c) clarifying the matter that deployment of the SAFEGUARD system at Grand Forks and Malmstrom Air Force Bases would not be affected by this limitation.

(2) Limitation of \$2.5 billion on the amount of fiscal year 1971 Defense appropriations which can be used for the support of Vietnamese and other free world forces in Southeast Asia.

(3) A clarification that the use of defense funds for non-U.S. free world forces in Southeast Asia can be utilized for supporting operations of the South Vietnamese and other free world forces in the border sanctuaries and related areas in Cambodia for the purpose of protecting U.S. troops and the acceleration of Vietnamization.

(4) A prohibition on the obligation of \$283 million for the purchase of the F-111F until the Secretary of Defense has certified to the Committees on Armed Services of the House and Senate that the aircraft has successfully completed a structural integrity test program.

(5) With respect to the C-5A program, the adoption of language requiring (a) prior to the obligation of the \$200 million, the approval of the House and Senate Committees on Armed Services of the overall C-5A program subsequent to the recommendation by the Department of Defense and (b) stipulating by statute that the \$200 million being requested will be utilized only for the C-5A program.

(6) Requirement that beginning in fiscal year 1972 the procurement of naval torpedoes be authorized prior to an appropriation in the same manner as other weapon systems contained in the bill.

(7) Reenactment of language requiring that research and development funds be utilized only for projects having a direct and apparent relationship to a defense mission.

(8) Creation of interdepartmental machinery under which military research projects also may be utilized for civilian domestic purposes. The purpose of this amendment is to insure that the by-products of defense research be utilized for domestic needs where possible.

(9) Language largely paralleling existing law with respect to military sales, requiring approval by the U.S. government in instances where certain Southeast Asian countries donate U.S.-furnished equipment to third countries.

(10) Language relating to Defense-sponsored independent research and development by military contractors, establishing, among other things, a ceiling of \$625 million for fiscal year 1971 on this general activity.

(11) Language relating to chemical and biological warfare which (a) reinstates last year's provision prohibiting procurement of delivery systems for lethal chemical and all biological warfare agents; (b) adds a provision relating to safety procedures involving disposal of lethal chemical and all biological warfare agents; and (c) directs a study on ecological and physiological effects of using herbicides.

(12) Language authorizing the transfer to Israel of aircraft and supporting equipment by sales, credit sales, or guaranty as a means of assistance in providing for the security of that nation.

#### BASIC CONSIDERATIONS INVOLVED IN BILL

The Committee in making its recommendations on the authorization request of \$20,271,489,000 as recommended by the Department of Defense and the \$20,237,489,000 as approved by the House, was mindful of a number of basic considerations including:

(1) the necessity of recommending an authorization which would be the lowest dollar amount consistent with the requirements of national security in view of the serious financial condition of the Federal government and the problems of our domestic economy.

(2) The fact that the military hardware being authorized will be delivered only after a period of eighteen months to as long as seven years; that research and development produce results ranging in time from one to as long as ten years.

(3) The necessity for anticipating the hardware requirements for from one to six years in such a way as to have the needed modern equipment in the hands of troops at the desired time.

(4) The difficulty of selecting, within severe budgeting constraints, from among the various candidates, those major weapon systems which should be committed to large scale development or production programs in fiscal year 1971 and those which should be denied.

(5) Recognition of treaty commitments between this country and 44 foreign nations which involve a commitment on the part of the United States to some form of Defense arrangement.

(6) A recognition that the armed forces of the United States are in a "transitional year" involving a review on the part of the Executive Branch which will result in a revised national military strategy and lower force levels in the years to come.

(7) A recognition of an increased level of armaments on the part of the Soviet Union involving (a) increased strategic land-based and sea-based missiles; (b) an increasing Soviet naval force; and (c) modernity in conventional general purpose forces.

(8) The potential effects of the SALT talks.

(9) The continuing spiral of inflation which should be recognized in measuring dollar levels alone as an indicator of Defense spending; and the tendency to overlook the increased cost in absolute dollars for the more sophisticated and complex weapons needed to outperform any adversaries.

In weighing the many problems and issues on this legislation, the Committee was indeed mindful of our *national survival* as an overwhelming priority. The statement of the Secretary of Defense during the authorization hearings on this point speaks for itself: "The Soviets are continuing the rapid deployment of major strategic offensive weapon systems at a rate that could, by the mid-1970s, place us in a second rate strategic position with regard to the future security of the Free World."

#### *Committee Decisions*

The foregoing considerations obviously represent in many instances conflicting demands and priorities. The Committee's judgment involving all of these as well as other considerations may be indicated as follows:

(1) The bill as recommended by the Committee in terms of procurement and research and development funding has been reduced by \$1.329 billion or 6% below the House and 6.7% below the Department of Defense request which was described as "rock bottom" when submitted.

(2) This procurement research and development budget is the lowest since 1964 when the inflation factors which have occurred since 1964 are eliminated.

(3) The number of aircraft being approved by this bill is the lowest procured by the Air Force since 1935 and the lowest procured by the Navy since 1946.

(4) The Committee recognizes that certain modernization items including the F-14 Navy fighter and the F-15 Air Force fighter and the shipbuilding and conversion program should no longer be postponed.

(5) The Committee effected a change of policy with regard to the SAFEGUARD anti-ballistic missile system by the adoption of statutory language which limits the system to the protection of our **strategic deterrent**.

(6) The Committee has recommended language in a number of areas which would increase the Congressional overview in various Defense weapons systems including the F-111 and the C-5A program as well as other areas involving independent R&D and chemical and biological warfare.

#### *Continuing Review of Defense Programs*

The Committee has continued to expand its area of interest in the procurement of major weapon systems. Continued improvements on the reporting system established by the Committee last year to moni-

tor the procurement of selected major weapon systems have resulted in a report useful for both the Committee and the Department of Defense. Reports received on a quarterly basis supported by detailed analysis of selected programs performed by the Preparedness Investigating Subcommittee provided the Committee with current objective data used in the deliberation on the fiscal year 1971 budget request.

The Committee is aware of the improvements in the procurement activities being suggested by the Department of Defense and recognizes that improved estimating procedures, a revised milestone procurement concept, and improved management controls are some of the steps in the right direction aimed at eliminating the past procurement problems. The Committee plans to follow the progress made in these areas closely in the coming year. Through its Preparedness Investigating Subcommittee, the Committee is currently performing analyses of the F-14 and F-15 fighter aircraft contracts in the early program stages and plans similar analyses of other programs.

The Committee has made extensive use of the Office of the Comptroller General in performing the reviews and analyses during the past year. The General Accounting Office, in addition to their regular publicized reviews of defense programs, also provided valuable assistance to the Committee in special detailed analyses of selected weapon programs, missile proliferation, contract analyses, and contractors' independent research and development.

It appears evident from analyses of programs made by the Committee during the past year that a major cause of the procurement problems pertaining to cost growth, performance degradation, and schedule slippage arises because too much reliance is placed on cost and performance estimates at a point too early in time and long before the final characteristics of the weapon system are established and contracted. The Committee, therefore, during the coming fiscal year plans to inquire in some detail into the manner in which the *original cost* and *performance estimates* are established and in the specifications of selected new or recently awarded programs in order to be in a better position to act on further authorizations for these programs. Such an analysis will further identify and take into account the vital element of concurrency between R&D and production so as to hopefully prevent problems in these procurements.

#### ASPECTS OF BILL OF SPECIAL INTEREST

##### *Reduction of \$334.8 million in New Authority in Recognition of Unused Prior Appropriations*

As explained below in detail, the Committee reduced the various activities throughout the bill in an amount totaling \$334.8 million in recognition of prior appropriations not yet obligated which, according to Department of Defense officials, will not be used until sometime after fiscal year 1971. These prior year funds therefore represent monies that may be used, if needed, in lieu of new obligating authority to support the fiscal year 1971 program in this amount. Set forth below is a detailed listing of these amounts.

	[In thousands]	Amount
<b>Aircraft:</b>		
Procurement of Equipment and Missiles, Army-----		\$2,400
Procurement of Aircraft and Missiles, Navy-----		85,500
Aircraft Procurement, Air Force-----		59,400
Subtotal, aircraft-----		<u>\$97,300</u>
<b>Missiles:</b>		
Procurement of Equipment and Missiles, Army-----		\$8,000
Procurement of Aircraft and Missiles, Navy-----		7,500
Procurement, Marine Corps-----		-----
Missile Procurement, Air Force-----		14,000
Subtotal, missiles-----		<u>\$29,500</u>
Navy vessels: Shipbuilding and Conversion, Navy-----		<u>\$150,000</u>
<b>Tracked combat vehicles:</b>		
Procurement of Equipment and Missiles, Army-----		\$1,000
Procurement, Marine Corps-----		-----
Subtotal, tracked vehicles-----		<u>\$1,000</u>
<b>Other weapons:</b>		
Procurement of Equipment and Missiles, Army-----		\$1,000
Other Procurement, Navy-----		-----
Procurement, Marine Corps-----		-----
Subtotal, other weapons-----		<u>\$1,000</u>
Total, procurement-----		<u>\$278,800</u>
<b>R.D.T. &amp; E.:</b>		
Army-----		\$18,000
Navy-----		15,000
Air Force-----		18,000
Defense Agencies-----		5,000
Total, R.D.T. & E.-----		<u>\$56,000</u>
Total-----		<u>\$334,800</u>

In order to understand clearly the Committee's action, two significant facts should be borne in mind from the outset:

1. The amount of reduction in each category represents the Department's estimate of amounts of unobligated balances of funds in each related appropriation account which have already been made available under authorizations and appropriations in fiscal years prior to fiscal year 1971. Thus, the amounts represent funds currently in the hands of the Department of Defense.

2. No adequate justification in terms of either prior year or current programs to be supported by these funds has been presented to the Committee by the Department of Defense.

Under an applicable provision of law (section 642 of the Department of Defense Appropriation Act for Fiscal Year 1970, Public Law 91-171 approved December 29, 1969) the Department of Defense was required to recommend in the President's budget the recision of old balances in amounts approved by the Director of the Bureau of the Budget estimated to remain unobligated as of June 30, 1971 as follows:

(a) From 1967 and prior programs for "Shipbuilding and conversion, Navy."

(b) From 1969 and prior programs for other procurement appropriations.

(c) From 1970 and prior programs for research, development, test, and evaluation appropriations.

The Department complied with this requirement but indicated that the amounts recommended for rescission would be needed in each case for completion of programs for which the funds had been previously authorized and appropriated. In line with this position and in view of the possibility that the amounts involved would be rescinded by appropriation action, the Department recommended fund authorization in sufficient amount to permit requests for reappropriation of amounts rescinded.

The House denied the request for new authorization because there would be no requirement for new authorization if the House Appropriations Committee permits these prior year funds, which were authorized previously, to be retained by the Department; and conversely, if the House Appropriations Committee decides that these funds should not be retained by the Department, there would be no purpose in reauthorizing appropriations for programs which no longer require funds.

As indicated above, it is the view of the Committee that the Department has failed to rejustify programs for which these amounts previously were made available, nor has it presented any justification for current programs against which these funds could be applied. Moreover, it should be recognized that since these funds would not have been obligated until fiscal year 1972, the Department may request additional authorization for that fiscal year if, in their opinion, the requirement still exists. Accordingly, since, on the present record, there can be no basis upon which a request for reappropriation can be made, whether the amounts are rescinded by appropriation action or not, there is no need for enactment of fund authorization in these amounts.

The program recommended for approval by this Committee for fiscal year 1971 will be financed in part with new authorization, and in part with \$334.8 million of fiscal year 1970 and prior year appropriations.

#### C-5A AIRCRAFT PROGRAM

##### *Funding Request*

The fiscal year 1971 budget request in this legislation for the C-5A aircraft totals \$622.2 million constituting the following elements:

(1) \$344.4 million for unfunded prior year production commitments;

(2) \$200 million in contingency funds. This amount represents a sum in excess of the amount required to fund the contract to ceiling price as interpreted by the Air Force. This interpretation is not agreed to by the contractor. The Committee takes no position on the merits of the contractual disagreement;

(3) \$66.2 million for initial spares and \$11.6 for research and development. It might be noted that the fiscal year 1971 request for the C-5A also includes an item of \$1.4 million for military construction not contained in this bill.

### *Committee Recommendation*

The Committee recommends approval of all the budget items relating to the C-5A in the fiscal year 1971 request totaling \$622.2 million, subject to the condition, as explained below, that the \$200 million will not be obligated until the Secretary of Defense has presented a plan for the use of \$200 million to the House and Senate Committees on Armed Services and these bodies have approved such a plan.

The basic issue for the Committee was whether the need for the C-5A aircraft beyond the number of about 30 (which would be delivered by December 31, 1970 under the present contract funding as interpreted by the Department of Defense) was sufficiently great to justify the "contingency" funding of \$200 million. It was the view of the majority of the Committee that despite the financial problems of the contractor and the necessary extraordinary contracting procedures this program should not be allowed to cease shortly after December 31, 1970. The fact is that additional C-5As are essential for national defense purposes. The basis for the Committee's decision therefore is the essential need of this aircraft.

### *Restrictive Committee Language*

The Committee adopted two highly significant language provisions not contained in the House version of the bill concerning the C-5A funds for fiscal year 1971. The first restriction relates to the use of the \$200 million in contingency funds until their use has been approved by the Senate and House Committees on Armed Services.

Except for approximately \$82 million which will be requested in fiscal year 1972 for the C-5A program, the remaining required funding will be in excess of the contract obligation as interpreted by the Air Force. As previously indicated the contractor does not agree with the Departmental interpretation.

In this connection it should be noted that the funding for the C-5A program up to fiscal year 1971 (fiscal year 1970 and prior) totals approximately \$3.4 billion. The Department of Defense estimates the cost of completing the remainder of the 81 plane program will be approximately an additional \$800 million over and above all funds approved prior to fiscal year 1970 and the \$344.4 million in this bill. The \$200 million in this bill therefore represents only a portion of the anticipated costs of completing the program.

The Committee in Section 504(a) provides that the \$200 million will not be obligated until the Secretary of Defense has presented a plan that has been approved by the House and Senate Committees on Armed Services. In effect this means that the proposed contractual arrangement both for the use of the \$200 million and the completion of the entire C-5A program will require approval of the two Committees. Through this method there will be the opportunity of a complete review by the Committees on this problem.

The second Committee language provision provides for strict statutory guidelines which will insure that the \$200 million in contingency funding will be used only for the C-5A program insofar as the contractor is concerned and not possibly intermingled or diverted to other uses among the various other programs of the company. The bill in section 504(b) expressly excludes other uses for the \$200 million.

### *Discussion of Committee Position*

The basic premise of the Committee position is the fact that the C-5A aircraft is needed as an essential element of our national defense



The original C-5A program formulated in the early 1960's contemplated six squadrons totaling 120 planes. Subsequently this program, as a result of increased cost and other factors, was reduced to four squadrons or 81 planes which is the present program. In November 1969 the Secretary of Defense announced the program would be held to 81.

The C-5A was designed for the specific role of carrying the out-sized equipment of combat divisions that no other aircraft can transport. These include such items as tanks, self-propelled Howitzers, and other equipment of mechanized or armored divisions. The items which will be transported by the C-5A constitute about 75 percent of the heavy firepower of the armored divisions. The C-5A will be used as a complement to other types of aircraft which will transport the troops and lighter equipment of the fighting units.

The C-5A is the largest aircraft ever built. As an example of a typical deployment sortie to Europe, each C-5A would carry 75 tons of outsized equipment, an additional 6 tons of bulk cargo, with 81 men.

The number of about 81 aircraft is considered the minimum number essential to constitute a meaningful military capability.

#### *Possible Alternatives*

The Department of Defense has made it clear the funding request of \$344.4 million would finance the C-5A program for only approximately the first 6 months of fiscal year 1971. Without additional funding beyond the \$344.4 million, the C-5A program would substantially cease about December 31, 1970, because of the severe financial condition of the company. The \$200 million in contingency funds would be sufficient to finance the C-5A program for the latter 6 months of fiscal year 1971. Under these circumstances the following alternatives present themselves insofar as the fiscal year 1971 request is concerned:

(1) If no funding is authorized for fiscal year 1971, the Air Force would receive only 17 aircraft for appropriated funds of about \$3.4 billion;

(2) The Air Force estimates that the fiscal year 1971 fund request of \$344.4 million for prior year unfunded deficiencies will allow continuation of the program through December 1970 and allow the completion of 13 additional aircraft for a total of 30. It should be noted that the Committee voted on the matter of funding only the \$344.4 million and deleting the \$200 million in contingency funds. This proposed amendment was not adopted by the Committee;

(3) The \$200 million in contingency funds would be required for funding during the remaining 6 months of fiscal year 1971 and would allow scheduled completion of 12 additional aircraft for a total of 42 aircraft scheduled to be completed by the end of fiscal year 1971;

(4) The Committee also considered the alternative of another aircraft program in view of the cost of the C-5A. Testimony was received indicating that no other aircraft could perform the unique role of the C-5A. Moreover, the cost of initiating or reopening new production lines would be financially impractical as compared to the ongoing C-5A program.

The crucial decision of the Committee therefore is the recognition of the need for the aircraft and the necessity for continuing the program if a reasonable solution can be found to provide the additional financial resources to complete the program.

*Effect on Unit Cost of Additional Numbers*

The following figures are persuasive for continuing the C-5A program with respect to the unit cost per aircraft under the various funding alternatives:

(1) If no additional funding is authorized we will have 17 aircraft at a cost of about \$3.4 billion or approximately \$200 million per aircraft;

(2) If additional funding of only \$344.4 million is authorized, for fiscal year 1971 approximately 30 aircraft will be delivered at a cost of approximately \$3.75 billion or \$125 million per aircraft;

(3) If the entire \$544.4 million in the fiscal year 1971 request is approved for a total of \$3.95 billion, it will result in 42 planes with the cost per plane approximately \$94 million;

(4) If a total of 81 aircraft are procured, the total cost is estimated to be approximately \$4.585 billion or a unit cost of approximately \$56 million each. These totals include an amount for spares, support, and R. & D. for this program.

In other words, after the \$344.4 million owed under the contract is authorized, additional funds of \$800 million will be required for 50 additional planes resulting in an average cost of about \$16 million each for the remaining planes.

*Technical Problems*

The Committee recognized the current technical problems with this aircraft and considered the potential cost and performance impact. The Committee will continue to maintain the program under careful scrutiny as further testing is conducted.

The Deputy Secretary of Defense anticipates that the various technical problems that have arisen in connection with the plane can be satisfactorily resolved.

**SAFEGUARD ANTI-BALLISTIC MISSILE SYSTEM**

*The Need for SAFEGUARD*

The Committee has examined with concern the continued expansion of Soviet strategic forces which pose a serious potential threat to the American land-based deterrent. The United States cannot permit such a threat to develop without taking suitable countermeasures to provide for the continuing survivability of sufficient strategic weapons for credible retaliation and confident deterrence.

Even if the Soviets should not install additional missile launchers, the present number already deployed or under construction constitutes a delivery capability which, with *qualitative* improvements, would pose a serious threat to our land based MINUTEMAN deterrent in the mid-1970's. These qualitative improvements, which are well within Soviet capabilities, include an improved accuracy for the SS-11 and an accurate MIRV on the SS-9.

Preferable to an increase of American offensive forces, especially at this stage of serious arms control negotiations, is the addition of further anti-ballistic missile defenses to protect the land-based deter-

rent. The Committee hopes that the Strategic Arms Limitation Talks will succeed in stabilizing the strategic balance; but prudence demands that the United States take appropriate measures to guarantee the survivability of our retaliatory capability.

The Committee shares the President's judgment that defense of the U.S. deterrent in no way jeopardizes the security of the Soviet deterrent and, in fact, provides additional incentives for the Soviet Union to enter a substantial arms limitation arrangement.

*Committee Recommendation*

The Committee has decided to confine the authorization for the continuation of the SAFEGUARD program to those sites devoted to the defense of the deterrent. Thus the Committee has approved continuation of the Phase 1 sites at Malmstrom and Grand Forks, as well as full deployment at Whiteman and advanced preparation at Warren Air Force base.

In taking this action, the Committee wishes to establish the primacy of active defense to increase the survivability of the land-based deterrent. By striking from the authorization the House approved administration request to proceed now to advanced preparation of four area defense sites, the Committee affirms its conviction that there is no compelling need to move now to the deployment of an area defense of our population against Chinese Communist ICBM attack.

While the impact of the Committee's action on the SAFEGUARD authorization is only \$10 million, the long term effect, should this decision be perpetuated in subsequent years, is substantial.

Present circumstances do not justify a diversion of our resources from the primary task of defending the deterrent to the less urgent objective of providing a defense against the evolving Chinese Communist threat. Whether the development of a thin area defense is a wise response to a future Chinese nuclear capability remains to be demonstrated.

It is the Committee's considered judgment that the proposed deployment, sufficient for our national security requirements and conducive to strategic arms control, deserves the full support of the Senate.

*General Summary of Funding for SAFEGUARD System*

The budget request contains a total of \$1.459 billion (including military construction) for the SAFEGUARD Anti-ballistic Missile System. Of that amount \$1.359 billion requires authorization.

The bill as reported recommends authorization of \$1.349 billion. The Committee, in restricting advance site preparation to Warren only rather than the five sites requested, reduced the authorization by only \$10 million. However, the Committee action, based on the current situation, will reduce the total projected acquisition cost (Research and Development, Procurement, and Military Construction) from \$10.7 billion for the twelve site deployment of \$6.5 billion for the four site deployment protecting only the MINUTEMAN deterrent, an ultimate savings of \$4.2 billion.

Moreover, of the \$6.5 billion total projected cost for the four site MINUTEMAN defense, about \$2.2 billion has been obligated and would not be recovered even if the program were terminated. Thus the

remaining cost of the four site MINUTEMAN defense is \$4.8 billion. It should be emphasized that the total authorization recommended by the Committee amounts to \$1.349 billion for fiscal year 1971.

SAFEGUARD PROGRAM FOR FISCAL YEAR 1971 RELATED ONLY TO PROTECTING THE DETERRENT AND NOT AREA DEFENSE

(In millions of dollars)

	Phase 1	Phase 2				Total
		Due to added SPRINTS at GF & MALM	Due to the Whiteman site	Due to advance prep Warren	Due to other	
Authorization:						
R.D.T. & E.	365.0					365.0
Procurement	457.4		178.0	15.0		650.4
Family housing	8.8					8.8
Military construction	161.0	35.0	120.4	0.4	8.4	325.2
Subtotal in bill	992.2	35.0	298.4	15.4	8.4	1,349.4
Other not subject to authorization:						
Procurement	0.6					0.6
Military construction	8.0		6.1	3.0	2.9	20.0
Operations and maintenance	42.0				11.0	53.0
Military personnel	12.0				2.0	14.0
Subtotal	62.6		6.1	3.0	15.9	87.6
Total ABM program	1,054.8	35.0	304.5	18.4	24.3	1,437.0

<sup>1</sup> Defense request for advance preparation for 5 area sites was \$25,000,000.

<sup>2</sup> Defense request for advance preparation for 5 area sites was \$15,000,000.

*Use of Fiscal Year 1971 Procurement Funds for SAFEGUARD*

The \$650.4 million in new procurement obligational authority is contained in the total Army request for missile procurement. The bill itself does not specify the use to which the procurement funds would be put.

The supporting information furnished to the Committee by the Department of the Army states that the planned procurement for fiscal year 1971 is as follows:

1. SPRINT missiles and Launch Equipment (Grand Forks).
2. SPARTAN missiles and Launch Equipment (Grand Forks).
3. One Perimeter Acquisition Radar (Malmstrom).
4. Two Missile Site Radars (Malmstrom and Whiteman).
5. One Missile Site Radar Data Processor (Whiteman).
6. Partial funding for training equipment.
7. Equipment for the Ballistic Missile Defense Center and the Tactical Software Control Site.
8. Advanced procurement for the Grand Forks, Malmstrom and Whiteman sites and Advanced Preparation for one additional site at Warren.

*Prior and Future Funding*

The major items to be procured with prior fiscal year funds are as follows:

1. One Perimeter Acquisition Radar and Data Processor (Grand Forks).
2. One Missile Site Radar and Data Processor (Grand Forks).
3. One Missile Site Radar Data Processor (Malmstrom).
4. Initial Equipment for the Ballistic Missile Defense Center.
5. One Perimeter Acquisition Radar Data Processor (initial use at Tactical Software Control Site; final use at Malmstrom).

6. Partial funding for training equipment.

The remaining major procurement items for Modified Phase 2, as approved by the Committee, subsequent to 1971 are as follows:

1. SPRINT Missiles and launchers for the Whiteman site and augmentation of Grand Forks and Malmstrom sites.
2. SPARTAN Missiles and launchers for Malmstrom and Whiteman sites.
3. Total complex at the Warren site if deployment is subsequently authorized.

*Technical Considerations*

In an effort to assess the capabilities of the SAFEGUARD system, the Committee heard extensive testimony on its technical effectiveness. The Committee believes that the technical reservations brought to its attention (e.g., radar blackout, radar discrimination, refraction and the like) have been given proper consideration by the Department of Defense, and concurs in the judgment of the Department that such developmental problems as may remain are capable of solution within the overall system design.

The Committee wishes further to note that many of the technical limitations on the system are associated with, and only pertain to doubtful, uncertain and high-risk modes of attack against it; strikes of the nature that one would expect from an adversary requiring a high-confidence attack strategy should not seriously degrade the technical performance of the system, given the levels of offensive threat presently projected. Should the threat increase beyond present projections, the Committee would look to supplementary components as a means of assuring that an adequate retaliatory deterrent would survive attack.

The Committee is convinced that a considerable measure of protection of the MINUTEMAN force will result from deployment of SAFEGUARD at the scheduled MINUTEMAN complexes. The Committee is of the opinion that the Soviets would be unlikely to attack the MINUTEMAN force unless they were certain to destroy all but a few tens of missiles. In this event, a planned Soviet attack would first encounter *the entire inventory* of SAFEGUARD interceptors before destroying those missiles that come under SAFEGUARD's protective cover. The number of MINUTEMAN thus protected is substantially larger than has been suggested by some critics who have assumed that the Soviets would allow three hundred MINUTEMAN to survive a first strike against the force.

The Committee evaluated the possible need to supplement SAFEGUARD should the Soviet threat to MINUTEMAN grow beyond the levels which SAFEGUARD is designed to counter. The Committee accepts the view that the relevant criterion for the evaluation of a system of active defense is not the defense cost per MINUTEMAN silo saved, or the relationship between the cost of the protection and the cost of the missile itself. It is, rather, a comparison of the cost of the defense to the cost of the offense to offset that defense.

In considering supplementary components to augment SAFEGUARD defense of MINUTEMAN against high attack levels that might possibly evolve if the Soviets *both expand and qualitatively improve* their ICBM forces, the Committee also examined alternatives to SAFEGUARD for the defense of MINUTEMAN. The alter-

natives fall into two classes. First, there are the interim systems which are derived by modifying existing air defense systems or air-to-air weapons systems. These modifications, when carefully engineered and tested to establish confidence in their performance equivalent to SAFEGUARD are unlikely to be available any earlier than SAFEGUARD. An even more serious deficiency is that the lower radar power and slower interceptor missiles designed for attacking aircraft make these interim systems very "brittle"; i.e., relatively minor changes in the threat make these interim systems useless, and these interim systems could not be upgraded to accommodate those changes in the offense which would render them useless.

The second class of alternative ABM systems for defense of MINUTEMAN are the "dedicated" hard-site defenses made of new components optimized for defending MINUTEMAN. Development of this kind of system is being initiated by the Department of Defense in fiscal year 1971, but it is unlikely that such a system can be deployed and operational until several years after a three or four site SAFEGUARD defense of MINUTEMAN. The delay would result in an unacceptable risk in the 1975-1980 time period. However, the development of new dedicated hard-site defense components should be undertaken so that the SAFEGUARD defense of MINUTEMAN could be augmented if necessary. The Committee notes that SAFEGUARD will have a continuing useful life even if augmented in response to a threat which exceeds its design capability.

Finally, the Committee observes that many of the arguments offered in opposition to SAFEGUARD are directed at the defense of population against the Communist Chinese threat rather than the defense of the land-based deterrent. Technical criticism of the PAR radar for example, while far from compelling with respect to defense against a Chinese Communist threat, is even less important a consideration to the system capabilities to protect MINUTEMAN missile sites. Concern that the Soviets would react to SAFEGUARD deployment by additions to their offense is unfounded if the mission of the SAFEGUARD system is protection of the deterrent. The premise that the system must work perfectly is not applicable when defending the deterrent forces since only a fraction of that force must survive to assure successful retaliation.

The Committee wishes to emphasize that defense of the deterrent is the only proper alternative to the proliferation of our offensive forces. The wisdom of increasing our security in this manner—by defending a fixed force rather than adding to it—is central to the subject of stable deterrence. In this way only can we manifest our concern for the legitimate security of our adversaries, while discouraging them from attempting to acquire a first-strike capability.

#### *SAFEGUARD and The SALT Talks*

It is the position of the Committee that the authorization of further ABM deployment to protect the strategic deterrent is not prejudicial to the SALT talks. Nowhere in the extensive hearings of the Committee or its Subcommittee on Strategic Arms Limitation Talks was the view expressed that defense of the deterrent would adversely affect the current negotiations. On the contrary, the Secretary of Defense, the Director of the Arms Control and Disarmament Agency and others argued forcefully that unilateral termination of the SAFEGUARD

program would undermine the American negotiating posture and diminish, rather than increase, the likelihood of a successful agreement.

The importance of SAFEGUARD to an agreement at SALT should be self-evident. As one of the central limitations to be negotiated in conjunction with limitations on offensive forces, SAFEGUARD is essential to the American position. Without SAFEGUARD the Soviets would have little incentive to agree to constrain increases to their offensive forces. The progress thus far in the SALT talks has served to confirm the view that SAFEGUARD is essential to their successful conclusion.

While the Committee would welcome an agreement that would obviate the need for SAFEGUARD, there can be no assurances that such an agreement will be reached. In the event of an agreement SAFEGUARD could be halted and, if necessary, such construction as might have been completed could be dismantled. Should our best efforts to achieve agreement fail, however, SAFEGUARD would be an important element in the maintenance of a secure deterrent force. To delay the modest deployment authorized for fiscal year 1971 would, in the opinion of the Committee, put the SALT talks, and our national security, at risk.

#### ARMY TANK PROGRAMS—M60A1, M60A1E2, AND MBT-70

This year the Army has requested funds for three tanks.

##### *M60A1*

The Committee recommends approval of \$56.7 million for this item.

The M60A1 is the tank currently being produced, and the Army requests continuation of production at a rate of about 30 a month, which is stated as the minimum economical production rate. The Committee notes that several product improvements are planned to give greater capability at a relatively low cost. The Committee believes that, properly administered, improvements to current systems provide the greatest capability for the least dollar expended. The Army has identified \$57.3 million in funds and equipment that is recoverable from the M60A1E2 program, as described below. The Committee recommends that \$10.9 million of that amount, representing 150 tank chassis, be applied against M60A1 costs, resulting in a reduction from the \$67.6 million requested to \$56.7 million.

##### *M60A1E2*

The Committee recommends denial of the \$12.1 million for this tank.

Work on the M60A1E2 started in 1965 and was to be a product improvement to the M60A1, primarily by adding a new turret and the 152 mm gun SHILLELAGH main armament system. Funds were provided in 1966 and 1967 for production, but the tanks were never assembled because of technical problems. The Army has requested \$12.1 million to continue effort toward solution of the problems. The current investment in 300 tanks and 243 turrets totals almost \$260 million and the Army estimates that about \$110 million more is required to field 543 of these tanks for an ultimate cost of about \$684,400 each.

In spite of the substantial investment in the M60A1E2 program and the optimism of the Army that the fix has been identified, the Committee believes that further funding of the program is not warranted and the \$12.1 million requested in 1971 is denied. As explained

under the M60A1 program, \$10.9 million of the \$57.3 million in recoverable assets will be used for that program. The remainder will offset other future requirements.

#### *MBT-70 Main Battle Tank*

Funds in the amount of \$77 million (\$36 million R&D plus \$41 million for advance production engineering) are requested in 1971 for the MBT-70 program. The Committee recommends approval of the \$77 million request. Since last year, the program has undergone a comprehensive review by the Defense Department. The Deputy Secretary of Defense has recommended continuation of an austere MBT-70 independently of Germany. The Army expects this action plus cost effective configuration changes to reduce the estimated unit cost from \$850,000 to \$600,000.

The Defense review centered on the question of whether the Army needs a new main battle tank based on the latest technology for the threat of the 1980s or whether reliance should be placed on upgrading the M60 tank. The conclusion is that the best course of action is somewhere between the original MBT-70 design and a product improvement of the M-60.

The Committee approves continuation of development of the new main battle tank, but continued review toward elimination of marginal features and reduction in cost is required. In addition, reliability and maintainability is of critical importance and should be emphasized in the development effort.

#### **AX-CHEYENNE, ADVANCED HELICOPTER DEVELOPMENT PROGRAM**

There are three separate elements of this bill closely related which should be considered within one context. These are (1) AX, an Air Force close air support aircraft for which funds in the amount of \$27.9 million were requested to initiate development; (2) the Cheyenne helicopter for which \$17.6 million in R & D funds were requested for the purpose of continuing development and tests; and (3) the Army Advanced Helicopter Development Program in the amount of \$21 million which is to pursue technology in a number of aspects regarding the future helicopters.

#### *Committee recommendations*

The Committee unanimously recommends the approval of the requested funds of \$27.9 million for the AX.

Following considerable discussion the Committee recommends the deletion of the \$17.6 million in funds requested for the Cheyenne development. The Committee recommends the sum of \$17 million for the Army Advanced Helicopter Development Program.

#### *Reasons for the Committee's decisions*

The Committee fully recognizes the need for an effective, simple, relatively inexpensive close air support aircraft for Army ground troops to meet future needs. The plans for the AX promise to meet this objective. Preliminary indications offer the hope that this plane can be built for approximately \$1.2 million each, not including all-weather and night capability which would add to the cost if plans are revised to include these features.

It should be noted that the initial development funds for this aircraft were approved in fiscal year 1970 and requests for proposals were



released in May of 1970. The decision for the production of this aircraft will not be made for at least two years.

The reasons for the denial of the request of \$17.6 million for further Cheyenne development include the following considerations:

(a) While the AX and the Cheyenne may be complementary in many ways, they are also competitive systems, which raises a question of the desirability of proceeding to production with two costly systems.

(b) The Cheyenne helicopter on which the production contract was cancelled in 1969 has, like many other weapons systems, increased in estimated projected unit cost from the initial amount of about \$2.7 million in June 1967 to \$3.8 million. This cost prospect raises a further question on the production of both the AX and the Cheyenne.

(c) With respect to the competitive factors involved in the AX and Cheyenne, there is the matter of the AX being superior with regard to survivability, reliability, and overall lethality.

(d) With respect to the solution of the rotor control and other technical problems of the Cheyenne, no satisfactory solution is imminent although tests to date indicate significant progress with respect to the ultimate solution of this longstanding problem.

#### *Advanced Helicopter Development Program*

The Committee recommends a reduction of \$4 million (from \$21 million to \$17 million) for the Advanced Helicopter Development Program. The \$4 million reduction is recommended because of the fact that it involves a new helicopter technology program for "maintainability and reliability" which can continue to be funded under another research and development program within the exploratory development area. In other words, in the Committee's view there are adequate funds in the Army exploratory development or other development programs to carry out this purpose.

The Committee recognizes that about \$168 million has been provided for the research and development program for the Cheyenne helicopter program. Ten Cheyenne helicopters have been produced and eight of this number remain. These helicopters, which have been used for various test purposes, can continue to be utilized with a portion of the \$17 million being recommended for the Advanced Helicopter Development Program. In this manner the technology achieved under the Cheyenne program so far will not have been wasted. The Committee wishes to emphasize, however, that in deleting the \$17.6 million for the Cheyenne program the Cheyenne program and contract will be terminated. The use of the test helicopters so far completed will be in the context of the Advanced Helicopter Development Program.

The competitive aspect of the AX-Cheyenne issue raises a question of close air support role and mission assignments within the Department of Defense. This matter warrants further consideration by the Secretary of Defense since there has been no major realignment among the services in about 20 years.

#### *TOW*

The TOW is a wire-guided anti-tank missile. It is to be used by Army ground combat troops against enemy tanks.

The TOW uses an open-breech launcher. Considerable discussion

has taken place in the last year over the possible wisdom and feasibility of using the SHILLELAGH missile for the same mission. The SHILLELAGH is a proven anti-tank missile fired from the SHERIDAN armored reconnaissance vehicle. In this role it requires a closed-breech gun tube to launch the missile. To convert SHILLELAGH to perform the TOW mission requires considerable development work.

The Committee recommends authorization of \$113.2 million for the TOW missile system; namely, \$1.5 million for R&D, \$106.3 million for production, \$4.9 million for initial spares, and \$500,000 for first destination transportation costs. This authorizes the procurement of missiles for \$83.3 million, and launchers with associated ground equipment for \$23 million. The foregoing amounts are those recommended in the budget request.

The Committee's decision was based on the facts that (a) the TOW is in production and will be issued to U.S. forces in Europe this fall; (b) the TOW has met its performance specifications; (c) no savings would be realized by developing the SHILLELAGH missile for the ground mount role; (d) the 4-year delay incurred by the Army if it were forced to await delivery of the SHILLELAGH missile in the ground mount role is deemed to be unacceptable in the light of the threat to American forces in Europe; and (e) there is no guarantee that SHILLELAGH in a ground mount role will perform as well as TOW.

#### *F-15 Air Force Fighter*

The fiscal year 1971 budget request for the F-15 is for continued research and development in the sum of \$370 million. The Committee recommends approval of this full amount.

The F-15 superiority fighter is under development by the Air Force and under the milestone concept will be operational in the mid-1970s. The F-15 will replace the F-4 which is now the workhorse of the tactical air forces in both Europe and the Pacific. Although the F-4 continues to perform in the roles of air superiority, close air support, and interdiction, the Committee is fully aware of its approaching obsolescence since it is an aircraft based on technology of the mid-1950s.

In recommending approval of the full amount for the F-15 the Committee does so in recognition that fighter aircraft development by the Soviets represents a serious challenge for tactical air superiority. The Soviet Foxbat fighter which was displayed at the Moscow Air Show in 1967 presently holds the world's speed record.

Considerable time has gone into contract formulation for the F-15 prior to the award of the contract, which followed extensive competition. Under the milestone concept the contractor is required to demonstrate selective areas of technical accomplishment in accordance with predetermined schedules as a prerequisite to the Government's commitment to proceed with production. In this manner the Government may defer its commitment to production in whole or in part for a like period of scheduled slippage without any adjustment in the contract prices for either development or production.

The Committee will follow the progress of the F-15 program in its continuing review of defense programs discussed earlier in this report.

#### *F-14 Navy Fighter*

The F-14 is a new air superiority fighter for the Navy. When incorporated with the PHOENIX missile it will perform the Fleet Air Defense mission.

The Navy requested \$982.2 million. This included \$324.2 million for research and development and \$658 million for procurement (\$517 million for 26 F-14A aircraft and related support costs \$60.1 million for advance procurement, and \$80.9 million for initial spares).

The Committee recommends approval of the authorization of all funds requested for the F-14, except for \$5.2 million requested for the F-14C aircraft. The F-14C would incorporate new avionics equipment on the F-14, replacing existing avionics to be installed in the F-14A and F-14B aircraft.

The Committee questioned the wisdom of initiating a new avionics program at this time to replace the AWG-9/PHOENIX fire control system. The total research and development costs for the F-14C was estimated at \$337 million. The Committee felt the wisest course of action was to curtail this program at the outset particularly in view of the need for austerity this year, and the fact the F-14C avionics system would not be operational until the late 1970s.

The Committee supports the request for 26 F-14 aircraft inasmuch as the program is currently on schedule, both in costs and technological achievement. The first flight is scheduled for January 1971. It now appears this will be achieved on or ahead of schedule.

The primary justification for the F-14 is the replacement of the F-4 aircraft in the 1973-1975 time frame. The F-4 dates back to 1955 technology-wise. There is a distinct requirement to replace the F-4 aircraft so the Navy will be equipped with a modern fighter aircraft capable of air superiority against any potential enemy.

While the Committee has fully supported this program, it does so recognizing that the program is presently on schedule. The Committee realizes that on any large complex weapon system certain technical problems can arise. However, on the basis that both technical and cost milestones will be achieved before further production commitments are made by the Government, the Committee recommends approval of \$324.2 million for continued R&D and \$658.0 million for procurement.

#### *F-111D/F Tactical Strike Aircraft*

The fiscal year 1971 budget request for the F-111F aircraft is \$563.3 million. This amount includes \$48.2 million for continuing research and development; \$283 million for new aircraft procurement; \$200.5 million for prior overtarget costs; and \$31.6 million for initial spares.

The Committee recommends approval of the amount requested for procurement, the amounts requested for overtarget costs and initial spares, and recommends a reduction of \$6.4 million in the amount requested for research and development.

The \$283 million was originally intended for the purpose of purchasing 40 F-111F aircraft, which added to the 58 aircraft funded in fiscal year 1970 would have provided the quantity for one operational wing. Two subsequent actions, however, have affected the total aircraft to be procured with the fiscal year 1971 funding request.

Following the accident which occurred in December 1969, the Air Force undertook a "proof testing" program to ascertain that the structural flaw responsible for the accident did not exist in other aircraft of the F-111 fleet. To offset the costs of this testing program the Air Force decided to reduce the fiscal year 1971 procurement by 4 aircraft. Hence, all additional expenditures above the amount in the budget request would result in the acquisition of lesser aircraft.

Late last year the Department of Defense reduced the total number of F-111F aircraft to be procured for program completion. This reduction in quantity caused a sharp rise in the unit cost and it now appears that as a result of subsequent negotiations with the contractor the \$283 million in this bill will only purchase approximately 25 aircraft.

The Air Force has assured the Committee that this reduced quantity will be sufficient to equip the fourth operational wing.

The Air Force has given assurance and the Committee would emphasize that this procurement represents the final increment of F-111 aircraft to be procured and no further funds will be requested for these aircraft. On this basis the Committee recommends approval and completion of the fourth wing. It should be stressed that funds in this bill represent the last procurement for the F-111 aircraft and the Committee approval is made on the basis of this fact.

In arriving at its determination to recommend approval of the fiscal year 1971 request for the F-111 aircraft, the Committee also considered aircraft performance of alternative weapon systems and other factors relating to deep interdiction tactical strike aircraft. The Committee would point out that no other aircraft in the Air Force inventory can compete with the F-111 in that this aircraft has:

- The ability to deliver significant bomb loads on distant targets;
- The ability to deploy rapidly over long distances, including non-stop, unrefueled, trans-Atlantic ferry capability;

- The ability to fly at very low level to avoid radar detection, as well as the ability to penetrate sophisticated electronic defense;

- The ability to make precision weapon deliveries at night and in all weather and the ability to operate alone in highly defended areas.

#### *Requirement for Structural Integrity Test*

One of the principal concerns of the Committee about the F-111 program relates to the accident rate both during the test program and following deployment. In recommending approval the Committee does so on condition that the funds in this bill not be obligated until the Secretary of Defense certifies to the structural integrity of the aircraft. In pursuance thereof the Committee has incorporated language in the bill in Section 503 to this effect. Prior to the obligation of funds, the Secretary of Defense must determine that the aircraft has successfully completed a comprehensive structural integrity test program. In approving a program for the procurement of such aircraft, the Secretary must certify in a written report to the Committees on Armed Services of the House and Senate that the structural test determination was made and indicate the basis for his determination and approval of the program. In other words, there must be sufficient testing to assure that the aircraft is completely airworthy and structurally sound.

#### *Reduction in Research and Development Funds*

The reduction of \$6.4 million for research and development is recommended on the basis that this amount was intended for development of the SPARROW-AIM-7G missile. The Committee desires to emphasize that missiles be funded under the missile category and not included in the aircraft program for which they are intended. The Committee has been subsequently informed that the AIM-7G program has been cancelled.

*B-1 (Advanced Manned Strategic Aircraft)*

*Committee Recommendation—Reduction of development funds of \$50 million (from \$100 million to \$50 million)*

The budget request and the bill as passed by the House contained a funding provision of \$100 million for fiscal year 1971 in development funds for the B-1.

The Committee recommends that the \$100 million request be reduced to \$50 million.

In making this reduction the Committee wishes to emphasize that it fully supports the concept for the B-1 advanced manned strategic aircraft. The essentiality of maintaining a deterrent posture with a mixture of all three elements of our strategic force—bombers, land based missiles, and sea based missiles—is recognized. It is the firm view of the Committee, however, that the \$50 million recommended in this bill, together with funds previously appropriated but not yet obligated, are sufficient to cover the work required during fiscal year 1971.

*Committee observations*

The Committee wishes to make the following observations regarding the \$50 million reduction in this bill.

(a) Out of the \$100 million appropriated for the B-1 for fiscal year 1970, \$65 million has been carried over into fiscal year 1971. It is the Committee's understanding that this amount will not be obligated before October 1970. The remaining \$35 million of the 1970 appropriation was recently obligated and will cover contract efforts through September 30, 1970.

It should be noted that there was a seven-month slippage in making the engineering development contract award which occurred on June 5, 1970, rather than November 1969 as previously planned.

(b) The decision for the production of this aircraft will not be made until about 1974. The Committee's reduction of the \$50 million should not delay the initial operating date of the aircraft now scheduled for mid-1978 by more than six months. Moreover, if future funding is increased over what is now planned, the possible delay in initial operational capability could be avoided.

While the Committee desires to see the B-1 proceed on an orderly and systematic schedule, some question could be raised as to the precise significance of the mid-1978 initial operating capability date in view of the extension of the B-52 capability into the 1980s with certain required modifications.

(c) The Committee action should also be beneficial with respect to the further refinements and studies which could be conducted with regard to:

(1) Refining the design of the avionics package and its integration with the engine subsystem and other subsystems.

(2) The hope that further refinement of these subsystems could result in a lower total program cost which is now estimated to be based on about \$29 million each in production cost, and about \$38 million each when research and development costs are included, for a total program cost of an estimated \$9.4 billion.

(3) Possible further studies regarding speed and payload capabilities which might result in cost savings and performance improvements.

## TITLE I—PROCUREMENT

## Sec. 101—Procurement Authorizations

## ARMY AIRCRAFT

	<i>In millions</i>
Army request.....	\$296.9
House action.....	-2.4
House authorization bill.....	294.5
Committee recommendation.....	292.1

*Authorization Request for Army Aircraft*

The Defense request includes \$180.7 million for 814 helicopters. The remaining \$116.2 million represents procurement of items and service primarily related to the existing inventory of Army aircraft including provision of added capability and safety features through improvement and modification.

The 814 aircraft requested in fiscal year 1971 compares to 1,403 and 1,001 aircraft procured in fiscal years 1969 and 1970, respectively. The continued downward trend in new procurement is a reflection of lower Southeast Asia attrition.

About 65% of the helicopter request is to replace losses to the existing inventory. The remaining 35% is for replacement of older aircraft which are both inefficient to maintain and operate and deficient in capability with respect to the modern warfare requirements.

Even with this buy the active inventory of Army helicopters will decrease.

*Summary of House Action*

The House approved the entire request except for \$2.4 million for reauthorization of prior programs. These previously authorized prior programs do not require reauthorization.

*Committee Recommendation*

The Committee recommends that funds be authorized for procurement of Army aircraft and related items in the amount of \$292.1 million.

The Committee recommends that the \$2.4 million for prior programs which will not be obligated by the end of fiscal year 1971 be used as financing for the 1971 request. (This is discussed in more detail elsewhere in this report.)

It is noted that the request provides only a modest effort toward inventory improvement primarily by continuation of programs previously approved by Congress.

Except for the financing adjustment, no change is recommended to the House Bill.

A brief description of the Army aircraft to be procured follows:

*CH-47 (Chinook)*

This transport helicopter is a medium transport capable of carrying, in addition to its crew of four, 33 combat troops with equipment or five tons. It is used extensively in Vietnam to lift troops, supplies, weapons and hospital patients. The Chinook can also retrieve downed aircraft and unserviceable equipment from the combat zone. The 1971 request will replace losses to the inventory.

*UH-1H (Iroquois)*

The utility transport helicopter has been procured in large numbers and is the principal troop carrier in the tactical mobility role. It is also used for medical evacuation of casualties from the battlefield. The 1971 request will replace attrition.

*AH-1G (Cobra)*

This helicopter is the only aircraft in the Army inventory specifically designed as an attack helicopter. Its primary missions are armed reconnaissance, armed escort, and direct fire support. The Cobra can be heavily armed with various gun and rocket combinations. This year's request is primarily to replace anticipated losses.

*OH-58A (Kiowa)*

The Kiowa was first procured in 1968 to perform missions involving observation, target acquisition, aerial scout, and command and control. It has added a new dimension to land combat because of the ability to search out the enemy over large geographical areas. This is the fourth year of a program to modernize the observation helicopter inventory.

## ARMY AIRCRAFT PROCUREMENT REQUEST—FISCAL YEAR 1971

[Dollar amounts in millions]

	Fiscal year 1970 program (appropriated)		Fiscal year 1971 request		House				Senate Armed Services Committee			
					Change from request		Authorized		Change from House		Recommendation	
	Quantity	Amount	Quantity	Amount	Quantity	Amount	Quantity	Amount	Quantity	Amount	Quantity	Amount
CH-47 cargo transport helicopter.....	36	\$56.3	24	\$41.6	.....	.....	24	\$41.6	.....	.....	24	\$41.6
UH-1 utility transport helicopter.....	160	49.2	120	37.9	.....	.....	120	37.9	.....	.....	120	37.9
AH-1 armed helicopter.....	170	86.0	70	37.0	.....	.....	70	37.0	.....	.....	70	37.0
OH-658 observation helicopter.....	600	64.2	600	64.2	.....	.....	600	64.2	.....	.....	600	64.2
Items less than \$500,000.....		3.0		2.8	.....	.....		2.8	.....	.....		2.8
Modification of aircraft.....		65.1		38.6	.....	.....		38.6	.....	.....		38.6
Common ground equipment.....		4.1		2.0	.....	.....		2.0	.....	.....		2.0
Component improvement.....		11.5		6.3	.....	.....		6.3	.....	.....		6.3
Other production charges.....		5.2		4.3	.....	.....		4.3	.....	.....		4.3
Ground support avionics.....		11.6		9.2	.....	.....		9.2	.....	.....		9.2
Aircraft spares and repair parts.....		160.7		50.6	.....	.....		50.6	.....	.....		50.6
All other.....	35	33.3			.....	.....			.....	.....		
Subtotal.....	1,001	554.4	814	294.5	.....	.....	814	294.5	.....	.....	814	294.5
Prior year financing available.....					.....	.....			.....	.....		
Prior programs to be justified.....				-2.4	.....	-\$2.4			.....	-\$2.4		-2.4
Appropriation requiring authorization.....		554.4	814	296.9	.....	-2.4	814	294.5	.....	-2.4		292.1



## NAVY AND MARINE CORPS AIRCRAFT

	<i>In millions</i>
Navy Request -----	\$2,487.7
House Action -----	-35.5
House Authorization Bill -----	2,452.2
Committee Recommendation -----	2,337.7

*Authorization Request for Navy and Marine Corps Aircraft*

The request provides for procurement of 261 aircraft for \$1,773.5 million (including initial spares) and \$299.4 million for advance procurement of components of aircraft to be included in next year's program. The remaining \$585.5 million is for modification of aircraft, purchase of replenishment spares, repair parts, support equipment, facilities and like expenses.

Included in the aircraft procurement are three new models—the F-14A fighter/interceptor, the S-3A carrier based anti-submarine aircraft, and the E-2C carrier based early warning aircraft. Each of these new aircraft is described elsewhere in this report.

The Committee noted last year that the 1970 request of 401 aircraft, the smallest number being procured in any year by the Navy since 1946, was by any standard an austere program. This year's request for 261 aircraft must be recognized as even more austere. In gross terms, this year's buy replaces less than 3% of the total inventory.

In the last 6 years the average age of aircraft in the Navy inventory has increased from 6.9 years to 8.1 years and, by the time the planes provided for in this bill have been finally delivered, in December 1972, the average age will have increased to 9.3 years. This age creep continues despite the fact that the total inventory has decreased by over 11 percent during the past 6 years.

*Summary of House Action*

The House approved the request as submitted except for \$35.5 million for prior programs. These prior programs, once having been authorized, do not require reauthorization.

*Committee Recommendation*

The Committee recommends authorization of \$2,337.7 million, a reduction of \$114.5 million from the House bill. The bill as reported recommends that the 2 S-3A aircraft request of \$79 million be funded in research and development rather than in procurement. A full discussion of the S-3A program appears elsewhere in this report.

The Committee also recommends use of the \$35.5 million that has been identified as not required until after fiscal year 1971 to finance the 1971 program. This is also discussed earlier in this report.

Except as indicated above, the Committee concurs with the House Bill.

A brief description of the aircraft requested follows:

*A-4M (Skyhawk)*

This is the improved single place light attack jet which will replace older versions in the Marine Corps. The improvements include a more powerful engine, an improved gunsight, and other operational improvements.

*A-6E (Intruder)*

This is an improved version of the all weather, subsonic two-place attack aircraft used by the Navy and Marine Corps. Improvements include a new microminiaturized digital computer, solid state weapons release, and single integrated track and search radar.

The 12 requested in 1971 is less than the peacetime attrition rate.

*A-8 (Harrier)*

The Harrier is a V/STOL aircraft developed by Hawker-Siddeley of England. The Committee recommends approval of the Marine Corps request for \$118.3 million to purchase 18 Harrier aircraft.

The Marine Corps anticipates receiving initial deliveries of the Harrier aircraft next year from the 12 aircraft approved purchase last year. These 12 aircraft are being built in England.

Last year the House Armed Services Committee felt strongly that if additional Harrier aircraft were to be purchased, they should be produced in the United States. As a consequence, arrangements were made to produce the aircraft requested this year and in following years in this country.

The Committee recognized that increased costs would be incurred by producing the Harrier in the United States, primarily because of higher wage scales. However, we felt the merit of having a capability to produce the aircraft in the United States; the advantages of bringing this advanced technology to U.S. industry; and the fact that we would not be dependent on foreign sources or production during times of crises outweighed the financial savings that would be realized by purchasing the aircraft directly from England. The Committee is impressed with the achievements of the United Kingdom manufacturer and the excellent performance and advancement of the art in V/STOL development.

*A-7E (Corsair II)*

The A-7E is a single-seat, single engine attack aircraft for close air support and interdiction missions. The 1971 request will replace anticipated losses.

*F-14A*

This is a new fighter aircraft incorporating tandem seats, variable sweep wing, and two engines. It will be rapidly adaptable to alternate

missions and can accept more powerful future engines and follow-on weapons systems. Its weapons include the SPARROW and PHOENIX missiles. This aircraft will ultimately replace the F-4 series.

*EA-6B (Intruder)*

The EA-6B is an improved electronic countermeasures aircraft.

*UH-1N (Iroquois)*

This is a modified version of the Army helicopter for Navy and Marine Corps use.

*P-3C (Orion)*

The Orion is the long range, land-based anti-submarine aircraft with additional capabilities for ship surveillance and mining day and night and in all kinds of weather. It possesses an advanced anti-submarine warfare avionics systems (ANEW) which uses a computer to manage the sensors, armament, communications and navigation systems.

*S-3A*

The S-3A carrier based anti-submarine warfare aircraft is discussed later in this report.

*E-2 (Hawkeye)*

The Hawkeye is a new carrier-based aircraft for airborne early warning, strike control, air traffic control, radio relay and search and rescue missions. The E-2C utilizes the basic E-2A airframe and engines but has an updated avionics giving greater capability and reliability. This aircraft will replace the E-2A which is fast becoming obsolete.

*T-2C (Buckeye)*

This is a twin-engine, two place basic jet trainer to provide initial jet training including qualifying landings on carriers for student aviators.

*TA-4J (Skyhawk)*

The TA-4J is a two-place version of the A-4F. It is the advance jet trainer for Navy and Marine Corps pilots.

## NAVY AND MARINE CORPS AIRCRAFT PROCUREMENT REQUEST--FISCAL YEAR 1971

[Dollar amounts in millions]

	Fiscal year 1970 program (appropriated)		Fiscal year 1971 request		House				Senate Armed Services Committee			
					Change from request		Authorized		Change from House		Recommendation	
	Quantity	Amount	Quantity	Amount	Quantity	Amount	Quantity	Amount	Quantity	Amount	Quantity	Amount
A-4M light attack Skyhawk.....	49	\$68.6	24	\$46.8			24	\$46.8			24	\$46.8
A-6A/E all weather attack Intruder.....	12	62.5	12	112.5			12	112.5			12	112.5
A-6A/E advance procurement, current year.....		2.3		3.6				3.6				3.6
EA-6B electronic warfare Intruder.....	12	180.6	8	144.5			8	144.5			8	144.5
EA-6B advance procurement, current year.....		4.2		4.4				4.4				4.4
AV-6B V/STOL Harrier.....	12	42.3	18	96.2			18	96.2			18	96.2
AV-6B advance procurement, current year.....				6.9				6.9				6.9
A-7E medium attack Corsair II.....	27	99.6	30	105.2			30	105.2			30	105.2
A-7E advance procurement, current year.....		4.4										
F-14A fighter/interceptor.....			26	517.0			26	517.0			26	517.0
F-14A advance procurement, current year.....				60.1				60.1				60.1
UH-1N utility helicopter Iroquois.....	62	34.1	15	16.3			15	16.3			15	16.3
UH-1N advance procurement, current year.....				1.0				1.0				1.0
P-3C ASW aircraft Orion.....	23	138.5	12	136.6			12	136.6			12	136.6
P-3C advance procurement, current year.....		23.6		6.7				6.7				6.7
S-3A ASW aircraft carrier based.....			2	79.0			2	79.0	-2	-\$79.0		
S-3A advance procurement, current year.....				22.7				22.7				22.7
E-2C early warning aircraft.....			3	92.3			3	92.3			3	92.3
E-2C advance procurement, current year.....				20.0				20.0				20.0
T-2C trainer aircraft.....	24	16.0	36	26.7			36	26.7			36	26.7
TA-4J trainer aircraft.....	75	86.9	75	101.0			75	101.0			75	101.0
TA-4J advance procurement, current year.....		2.9		3.3				3.3				3.3
Modification of aircraft.....		327.6		255.9				255.9				255.9
Aircraft spares and repair parts.....		495.6		447.4				447.4				447.4
Aircraft component improvement.....		43.9		43.1				43.1				43.1
Aircraft industrial facilities.....		16.9		27.9				27.9				27.9
Other aircraft production charges.....		38.3		45.0				45.0				45.0
Common ground equipment.....				96.3				96.3				96.3
All other.....	60	247.4										
Subtotal.....	356	1,996.2	261	2,518.4			261	2,518.4	-2	-\$79.0	259	2,439.4
Prior financing available.....		-170.0		-66.2				-66.2		-35.5		-101.7
NOA requested for authorization.....		1,826.2		2,452.2				2,452.2		-114.5		2,337.7
Prior programs to be justified.....				-35.5								
Appropriation requiring authorization.....		1,826.2		2,487.7								

## AIR FORCE AIRCRAFT

	<i>In millions</i>
Air Force Request-----	\$3, 374. 3
House Action -----	-59. 4
House Authorization Bill-----	3, 314. 9
Committee Recommendation -----	3, 225. 5

*Authorization Request for Air Force Aircraft*

Except for the C-5A and the F-111 for which no quantity was designated, the Air Force requests 350 aircraft costing \$486.2 million (including initial spares) and \$36.5 million for long lead components for aircraft that will be fully funded next year. Well over half of the aircraft requested are designated for use of other nations of the free world.

In addition, \$283.0 million is requested for procurement of F-111F aircraft, \$31.6 million for initial spares, and \$200.5 million for over-target costs associated with prior year F-111 programs. Authorization of \$544.4 million is included for C-5A unfunded deficiencies and contingency provisions and \$66.2 million is included for C-5A initial spares. These programs are discussed in detail elsewhere in this report.

The remaining \$1,725.9 million requested is authorization to finance a variety of expenses relating principally to the existing inventory of aircraft which include modification, replenishment spares and repair parts, industrial facilities and other charges.

*Summary of House Action*

The House approved the request except for the \$59.4 million authorization requested for prior programs. These previously authorized prior programs do not require reauthorization.

*Committee Recommendation*

The Committee recommends authorization for the Air Force of \$3,225.5 million for 375 aircraft and related expenses. This is a reduction of \$89.4 million from the House Bill as follows:

*Financing adjustment of - \$59.4 million*

These are funds from previously approved programs which will not be obligated by the end of fiscal year 1971. A full discussion is presented elsewhere in this report.

*International Fighter—denial of \$30 million request*

The International Fighter aircraft is to be purchased by the Air Force to meet the requirements of certain of our allies throughout the world, particularly in Southeast Asia. Last year the Congress authorized the Air Force to expend not to exceed \$28 million from other aircraft procurement funds for this program. No funds have been expended or obligated as yet. The Air Force requested \$30 million for fiscal year 1971.

Competition is presently being conducted by the Air Force with several U.S. firms to determine which fighter aircraft best meets the needs of the recipient allied nations. The aircraft selected must be relatively simple, inexpensive, and easy to maintain.

The Committee agreed in principle with the concept of providing our allies with a simple and inexpensive aircraft. However, since none of the \$28 million authorized to be expended last year has been obligated, the Committee feels it is not necessary to authorize \$30 million additional in this year's budget. Consequently, the Committee recommends that the \$30 million requested be denied. In view of the great need for austerity and until such time as the Air Force can more precisely define the nature and extent of the requirement for this aircraft, it can proceed satisfactorily with the funds authorized in fiscal year 1970.

A brief description of the other aircraft recommended for procurement follows.

*A-7D*

This is a single-engine jet attack aircraft capable of carrying and delivering all types of non-nuclear munitions in minimum weather and visibility. It has a primary mission of close support of ground forces in a permissive air environment.

*F-4E*

The F-4 is the primary air superiority fighter now in the Air Force inventory. It is a twin engine, two-place fighter capable of performing in addition to the air superiority role, close support and interdiction missions using conventional or nuclear munitions.

*RF-4C*

This is a reconnaissance version of the F-4 series aircraft. This buy will replace attrition.

*T-X Navigational Trainer*

This aircraft is a medium-size twin-jet aircraft configured with modern navigational equipment to provide simultaneous training for 12 students in essential skills, techniques, and procedures of air navigation in high-speed jet aircraft.

The following aircraft are being procured by the Air Force for use by the free world forces in Southeast Asia.

*F/RF-5*

This is a small single-place twin engine supersonic aircraft capable of performing close support, interdiction, counter air, and reconnaissance missions.

*T-37C*

This aircraft is used by the free world forces in the jet pilot training program. It is a twin-engine, dual control subsonic jet.

*T-41D*

This small, single-engine, dual control aircraft is used in the undergraduate pilot basic training programs of the free world forces.

*UH-1H*

This small, high-performance, single rotor helicopter has a primary mission of transporting troops into the combat zone and is being

purchased for the South Vietnamese Air Force as part of the Vietnamization program.

*U-17B*

The U-17B is a light weight, single engine, high wing, fixed landing gear aircraft for training, observation, and transporting light cargo and personnel.

## AIR FORCE AIRCRAFT PROCUREMENT REQUEST—FISCAL YEAR 1971

(Dollar amounts in millions)

	Fiscal year 1970 program (appropriated)		Fiscal year 1971 request		House		Senate Armed Services Committee	
					Change from request		Change from House	
	Quantity	Amount	Quantity	Amount	Quantity	Amount	Quantity	Amount
A-7D tactical attack fighter	128	\$348.2	88	\$216.7			88	\$216.7
A-7D advance procurement current year		26.5		26.0				26.0
F-4E tactical fighter			24	71.3			24	71.3
F-4E advance procurement current year		25.7		6.0				6.0
F-4F 5A/B tactical fighter	10	11.2	8	10.3			8	10.3
F-111 D/F advanced tactical fighter	68	566.0		283.0			25	283.0
F-111 D/F advance procurement current year		60.9						
F-111 A/E/D fiscal year 1969 and prior over target		71.4		200.5				200.5
Advanced MAS (Freedom) fighter	(1)		12	38.2			12	38.2
RF-4C tactical reconnaissance fighter								
RF-4C advance procurement current year		5.9		4.5				4.5
C-5A prior-year unfunded deficiencies and contingency provisions		225.0		544.4				544.4
C-9A aeromedical transport			9	39.5			9	39.5
T-37C primary trainer			5	1.1			5	1.1
T-41 A/C/D basic trainer	20	3	8	2			8	2
T-X navigational trainer		6.6	4	39.3			4	39.3
UH-1H/N utility helicopter	175	53.7	180	46.6			180	46.6
U-17B utility aircraft			12	4			12	4
Modification of aircraft		506.7		537.4				537.4
Aircraft spares and repair parts		881.8		599.0				599.0
Common ground equipment		84.5		93.9				93.9
Component improvement		40.0		32.0				32.0
Industrial facilities		35.5		27.5				27.5
War consumables		17.8		12.9				12.9
Other production charges		91.3		92.1				92.1
Miscellaneous		371.4		561.5				561.5
All other	187	620.8						
Subtotal	588	4,051.2	350	3,514.3			350	3,514.3
Prior-year financing available		-320.4		-199.4				-199.4
NOA requested for authorization		3,730.8		3,314.9				3,314.9
Prior programs to be justified				+59.4				-59.4
Appropriation requiring authorization		3,730.8		3,374.3				-89.4

\* Approved by Congress to be financed within AF appropriation.



#### MISSILES

The Committee on Armed Services has a keen interest in the many tactical missile systems either in inventory or under development by the military establishment. The Committee is vitally concerned with the justification for so many different types of tactical missiles as well as the requirements for each type of missile, that is, the total quantities each service desires for each given missile system. The Committee will continue to query the services on whether they compute requirements for a given missile system in relative isolation or whether they take into account the existence of other tactical missiles already in the inventory that perform the same or a similar mission.

Most of the missiles being purchased today by the military departments, by virtue of their complexity, involve high production unit costs. Therefore, any reductions that can be made, either in the types or quantities of missiles to be purchased, result in sizable savings to the taxpayer.

The Committee stresses that its objective is not to eliminate missiles for the sake of elimination, but rather its serious concern that no duplication or proliferation of missiles be permitted. The Committee is pleased that the Department of Defense is giving increased attention to determine what missiles, if any, can be eliminated. The Committee endorses their undertaking, and looks forward to their findings later this year which will assist the Committee's examination of the missile programs in the future.

Last year the Committee cancelled the Air Force's request to initiate the development of a new air-to-ground tactical missile known as the AGM X-3. Although modest funds were requested, the total research and development cost would have exceeded \$200 million. The Committee believes firmly in the principle of "nipping in the bud" questionable missile programs before large expenditures of public funds have been made.

This year the Committee took several positive actions in either eliminating or cutting back on several missile programs for differing and important reasons. For example, the Committee recommends elimination of the funds to "modify" the FALCON air-to-air missile which were requested in order to make it more capable for air-to-air combat. The Committee believes the Navy and the Air Force should use a common SIDEWINDER missile whose mission capability is the same as the FALCON. The Committee recommends reducing the funding for the Air Force SRM (Short Range Missile) until the Deputy Secretary of Defense decides whether the Navy or the Air Force's Short Range Missile program shall be pursued. This decision has been delayed.

The Committee recommends cutting the production funds for the CONDOR, MAVERICK, and SPARROW-F missile programs because additional research and development is required on these programs. The funds requested for the Hard Structures Munitions program are recommended for deletion because additional technical work remains to be performed and sufficient funds remain from prior years. Additional facts concerning these programs are set forth in following sections of this report.

In addition, the Committee reviewed the WALLEYE air-to-ground glide bomb and the Army's Light Anti-Tank Weapon (LAW) because of their relation to other systems requiring authorization. With respect to these two programs, the Committee recommends the following action:

#### WALLEYE

Although the Committee does not authorize funds for the WALLEYE program because it is a *glide bomb* rather than a missile, it is competitive and performs the same general mission as do other tactical missiles. Inquiry revealed that the Air Force had several thousand WALLEYES in inventory and planned on expending these missiles in the future for training purposes. Inasmuch as these missiles cost approximately \$20,000 each, the Committee felt the national interest would be better served by transferring these weapons to the Navy who also have the WALLEYE weapon system. The Committee understands this action is now underway.

#### LAW (Light Anti-Tank Weapon)

The Committee reviewed the Army's anti-tank missile weapon systems, including the TOW, SNIFFLELAGH and the DRAGON.

During this review it was determined that the Army also possesses the LAW (Light Anti-tank Weapon) which is a small rocket-type of ammunition used against armored targets, bunkers, and other field fortifications. Although its effective range is limited, it has been successful in South Vietnam against bunkers and bamboo hedge rows. The Committee is concerned about the vast quantities of this munition that the Army contemplates expending for training purposes during 1970-1971. Inquiry by the Committee revealed that the Army plans on expending 50% more of the LAW during 1970-71 for training purposes than it did during 1968-1969 when it was training tens of thousands of men in this weapon who were going to Vietnam. With a significant reduction in personnel going to Vietnam during 1970-71, it would appear reasonable that training expenditures would drop sharply rather than increase sharply. Inasmuch as several hundred thousand LAW rounds are involved, the cost is significant. Therefore, the Army is requested to re-analyze its training expenditures for this weapon in detail in order to present a justification to the Committee in the near future. The Army's examination should reveal that its training expenditures can be materially reduced.

## ARMY MISSILES

	<i>In millions</i>
Army request-----	\$1,094.6
House action-----	-8.0
House bill-----	1,086.6
Committee recommendation-----	1,031.6

*Authorization Request for Army Missiles*

The authorization of appropriations for the procurement of Army missiles covers not only the cost of procuring the missiles, but costs of modifications, spare parts, training kits, support equipment, production base support, and first destination transportation.

The major items in this request are SAFEGUARD-oriented with a total cost of \$660.4 million. A reduction of \$10 million is recommended for SAFEGUARD which is treated elsewhere in this report.

*Summary of House Action*

The House approved the request except for the \$8 million authorization requested for prior programs. These previously authorized prior programs do not require reauthorization.

*Committee Recommendation*

The Committee recommends authorization of \$1,031.6 million which is \$55 million less than the House bill. The reduction includes \$10 million for SAFEGUARD, a reduction of \$37 million from the HAWK missile request which is discussed below, and use of \$8 million of previously approved funds as financing for the 1971 request.

The TOW anti-tank missile is discussed elsewhere in this report.

Other missile systems in this authorization include CHAPARRAL, improved HAWK and LANCE. A brief description of each follows.

*CHAPARRAL*

This is an adaptation of the SIDEWINDER air-to-air missile to a selfpropelled, tracked cargo carrier. The CHAPARRAL system together with the VULCAN gun system provide a mobile, low altitude defense against enemy aircraft in the forward battle area. The missile is supersonic and with an infrared sensor locks on the enemy aircraft.

*Improved HAWK*

The HAWK is an all-weather air defense system for the field army area providing defense against low and medium altitude supersonic aircraft. It reinforces the low altitude capability of the VULCAN/CHAPARRAL and REDEYE systems. The Improved HAWK will provide faster reaction time, greater range, and increased lethality.

Funds were provided in 1969 and 1970 for procurement of the Improved HAWK missile. A significant number of missiles is still not under contract because of development problems. In December the Army suspended test firing of the missiles because of poor performance. These tests were resumed in March but to date the performance is still less than is desired.

The Army indicates that they are reviewing the program with the possibility of stretching out production and relieving it from some of the concurrency that is now in this system.

In view of the development problems, the current status of testing, and the concurrency that exists between production and development, the Committee recommends deleting the funds for procurement of missiles for 1971. This is a reduction of \$37 million from the \$90.3 million requested. Those missiles previously provided and not under contract will provide a minimum production base when development and testing confirm the existence of a satisfactory missile.

Authorization of the remaining \$53.3 million is included to continue the modification of ground support equipment.

#### *LANCE*

The LANCE is a lightweight, mobile, surface-to-surface tactical nuclear missile with a 5-70 mile range. LANCE will be fielded mounted on a self-propelled track vehicle and a lightweight towed launcher. It will replace the HONEST JOHN and SERGEANT missile systems which have been in the inventory for about 10 years.

Despite Army optimism concerning the successful completion of the development effort, the Committee notes the remaining high concurrency between development and production. Under the current schedule, the entire buy of missiles will be under contract before the LANCE is classified as a fully acceptable missile by the Army. Additionally, the warhead will not be ready on a schedule matching the availability of the missile.

However, Army states that failure to approve the 1971 request will result in an increase in the program of \$211 million. The Committee therefore recommends approval of the request of \$33.8 million with the understanding that the \$211 million increased cost will be avoided.

It is noted that only the nuclear mission is approved for LANCE.

#### *Land Combat Support System*

This is electronic test equipment which provides direct, general, and depot maintenance support for the guidance and control components of various missile systems. It provides a rapid test and repair facility in the forward areas of the combat zone.

## ARMY MISSILE PROCUREMENT REQUEST—FISCAL YEAR 1971

[Dollar amounts in millions]

	Fiscal year 1970 program (appropriated)		Fiscal year 1971 request		House				Senate Armed Services Committees			
					Change from request		Authorized		Change from House		Recommendation	
	Quantity	Amount	Quantity	Amount	Quantity	Amount	Quantity	Amount	Quantity	Amount	Quantity	Amount
SPRINT missiles		\$26.3		\$72.5				\$72.5		—\$0.3		\$72.2
SPRINT advance procurement		2		.8				.8				.8
SPARTAN missiles		76.2		138.1				138.1		— .8		137.3
SPARTAN advance procurement		.4										
SAFEGUARD ground equipment		242.6		445.5				445.5		—3.0		442.5
Less advance procurement, prior year		—13.3		—31.3				—31.3				—31.3
Subtotal		229.3		414.2				414.2		—3.0		411.2
Ground equipment, advance procurement		20.0		15.6				15.6		—5.9		9.7
SAFEGUARD production base support		.8		3.9				3.9				3.9
SAFEGUARD repair parts and support material		4.0		15.3				15.3				15.3
Subtotal SAFEGUARD		357.2		660.4				660.4		—10.0		650.4
REDEYE missiles		22.9		1.2				1.2				1.2
CHAPARRAL missiles		86.0		76.4				76.4				76.4
HAWK missiles		75.3		90.3				90.3		—37.0		53.3
HAWK modifications				2.0				2.0				2.0
NIKE HERCULES modifications		19.6		11.0				11.0				11.0
Air defense control and coordination systems		3.6		2.6				2.6				2.6
SHILLELAGH missiles		50.5		3.7				3.7				3.7
TOW missiles		100.0		106.3				106.3				106.3
PERSHING missiles		2.9		6.9				6.9				6.9
PERSHING modifications		10.0		12.8				12.8				12.8
Air defense targets		20.2		5.5				5.5				5.5
Land combat support systems		30.9		28.8				28.8				28.8
Land combat support systems modifications				1.7				1.7				1.7
LANCE missiles				30.8				30.8				30.8
LANCE modifications				3.0				3.0				3.0
Production base support		18.5		2.5				2.5				2.5
First destination transportation		2.0		1.5				1.5				1.5
Items less than \$500,000		1.6		.7				.7				.7
Repair parts and support material		43.0		38.5				38.5				38.5
All other		2.7										
Subtotal		846.9		1,086.6				1,086.6		—47.0		1,039.6
Prior-year financing available										—8.0		—8.0
Prior programs to be justified		—15.0		8.0		—\$8.0						
Appropriation requiring authorization		831.9		1,094.6		—8.0		1,086.6		—55.0		1,031.6

## NAVY MISSILES

	<i>In millions</i>
Navy request.....	\$983.0
House action.....	-36.4
House Authorization Bill.....	946.6
Committee Recommendation.....	932.4

*Authorization Request for Navy Missiles*

The authorization of appropriations for the procurement of Navy missiles covers the cost of the missiles as well as modifications of missiles already procured, purchase of spares and repair parts, and financing of industrial capacity.

*Summary of House Action*

The House approved the request except that CONDOR was denied, as discussed below, and \$7.5 million authorization requested for prior programs was disapproved. These previously authorized prior programs do not require reauthorization.

*Committee Recommendation*

The Committee recommends authorization in the amount of \$932.4 million, a reduction of \$14.2 million from the House bill.

The Committee has reduced the SPARROW air-to-air missile \$6.7 million, and has applied \$7.5 million for prior programs as a financing adjustment to the fiscal year 1971 request. Each of these actions is discussed elsewhere in this report.

The POSEIDON missile request of \$540.5 million is the largest single item. The remaining missile procurement is either to maintain present inventories or to improve inventory positions in certain advance types.

Each of the missiles to be procured with this authorization is described below.

*POLARIS/POSEIDON*

The procurement of POLARIS missiles has been completed. A part of this authorization is for continued support of the POLARIS program.

A total of 31 of the 41 POLARIS submarines will be refitted with the POSEIDON. POSEIDON is a two stage solid propellant missile with improved accuracy, larger payload than POLARIS and with multiple independent re-entry vehicles.

*SPARROW Air-to-Air Missile*

This missile provides the F-4 aircraft with an all-weather air superiority capability. It will also be used on the F-14. The AIM-7F will have improved ECM capabilities, better reliability, greater range, and a larger warhead than the current AIM-7E version.

The Committee recommends reducing the \$51.7 million request by \$6.7 million. The \$46.0 million recommended will buy the same total quantity, but the AIM-7F quantity is half that requested to permit additional development effort prior to a significant buildup in production.

The high unit cost of these missiles is noted and the Committee urges both Navy and the contractor to take all possible action to reduce the cost of this missile. Restraint should be exercised concerning the high annual training expenditure of these costly missiles. The R&D account contains \$1.4 million for continued developmental work.

#### *SIDEWINDER Air-to-Air Missiles*

The SIDEWINDER is the other primary air-to-air weapon used by the Navy, Marines, and Air Force. The latest configuration (-9H) of this infra-red homing missile has an expanded acquisition mode plus new solid state electronics for greater reliability and repairability.

#### *PHOENIX Air-to-Air Missile*

Procurement funding of \$101 million (\$87.6 million for missiles and \$13.4 million for spares) is recommended. An additional \$8.5 million is in the R&D account.

The PHOENIX missile for use on the F-14 is a supersonic, all-weather, long-range missile capable of near simultaneous launch against multiple targets in an all-weather, heavy jamming environment. The fiscal year 1971 buy is for continued firings of test prototype and value engineered missiles to meet the F-14 initial operational capability in April 1973.

#### *SHRIKE*

The SHRIKE is an all-weather, antiradiation missile in operational status with Navy and Air Force air units. Its purpose is to destroy enemy radar installations. An additional \$1 million in RDT&E is provided for this system.

#### *STANDARD Missiles*

These missiles are being procured to replace TARTAR and TERRIER missiles. The medium range model will replace TARTAR as the antiaircraft armament aboard guided missile cruisers and destroyers. The extended range version will replace TERRIER aboard carriers, cruisers, and missile frigates. With minor changes to shipboard equipment, both versions are compatible with the weapons control systems of the ships on which they will be used.

#### *SUBROC*

This is a missile that will deliver a nuclear depth bomb from a submerged submarine to destroy high-performance enemy submarines.

#### *Aerial Targets*

A variety of aerial targets will be procured to provide realistic training and to use in evaluating the performance of our missiles.

#### *CONDOR*

The CONDOR, known as the AGM-53A, is a Navy air-to-surface missile with remote TV guidance from the launch aircraft. Its primary mission is to destroy high value targets protected by intense local defenses. It is to have a long-range launch capability. The ability to launch at great distances from the target adds to the invulnerability of the launching aircraft.

The Navy requested \$58.2 million; namely, \$23.3 million for research and development and \$34.9 million for procurement, of which \$6 million was to modify test aircraft. The House denied \$28.9 million of the procurement request.

The Committee believes additional research and development is required in view of the technical problems already encountered, and recommends authorization of the Navy request for research and development, together with the modification funds for the test aircraft. The Committee concurs in the denial of authorization of \$28.9 million in production funds until further research and development has been accomplished and evidence of resolving the technical difficulties is available.

## NAVY MISSILE PROCUREMENT REQUEST—FISCAL YEAR 1971

[Dollar amounts in millions]

	Fiscal year 1970 program (appropriated)		Fiscal year 1971 request		House		Senate Armed Services Committee	
					Change from request		Authorized	
	Quantity	Amount	Quantity	Amount	Quantity	Amount	Quantity	Amount
Ballistic missiles:								
POLARIS		\$26.4		\$18.5				\$18.5
POSEIDON		491.5		540.5				540.5
Subtotal		517.9		559.0				559.0
Air-to-air missiles:								
AIM-7E/F SPARROW		31.6		52.7				52.7
AIM-9G/H SIDEWINDER		32.0		31.5				31.5
AIM-54A PHOENIX				87.6				87.6
Subtotal		63.6		171.8				171.8
Air-to-ground missiles:								
AGM-45S SHRIKE		9.5		10.9				10.9
AGM-53A CONDOR				28.5		—28.5		
Subtotal		9.5		39.4		—28.5		10.9
Surface-to-air missiles:								
RIM-24B TARTAR		2.8		2.7				2.7
RIM-66A Standard MR		25.6		25.4				25.4
RIM-2E TERRIER		5.2		4.9				4.9
RIM-67A Standard ER		32.1		33.2				33.2
RIM-8G TALOS		4.8		5.1				5.1
Subtotal		70.5		71.3				71.3
Other:								
UUM-44A Subroc		25.6		15.4				15.4
UUM-44A Advance procurement, current year				1.6				1.6
Subtotal		25.6		17.0				17.0
Aerial targets		53.8		57.8				57.8
Modification of missiles		20.8		18.2				18.2
Missile spares and repair parts		33.8		28.5		—4		28.1
Missile industrial facilities		9.9		10.5				10.5
Astronautics		13.4		2.0				2.0
Subtotal		818.8		975.5		—28.9		946.6
Prior-year financing available								—6.7
NOA requested for authorization				975.5				—7.5
Prior programs to be justified				+7.5		—7.5		
Total		818.8		983.0		—36.4		946.6
								—14.2
								932.4



MARINE CORPS MISSILES

	<i>In millions</i>
Marine Corps request.....	\$27. 6
House action.....	-----
House Authorization Bill.....	27. 6
Committee Recommendation.....	12. 8

*Authorization Request for Marine Corps Missiles*

The authorization request for the procurement of Marine Corps missiles is comprised of the HAWK missile, purchase of spares and repair parts and other supporting costs.

*Summary of House Action*

The House approved the request without change.

*Committee Recommendation*

A total of \$12.8 million is recommended for Marine Corps missiles. This is a reduction of \$14.8 million which deletes the procurement of improved HAWK missiles. The Marines will buy the improved missiles as part of the Army procurement. However, because of non-use of funds already provided related to developmental problems, the Army request for missile procurement was denied.

The Committee recommendation approves continuation of modification of ground equipment in anticipation of successful completion of the Army development program.

# MARINE CORPS MISSILE PROCUREMENT REQUEST--FISCAL YEAR 1971

[In millions of dollars]

Fiscal year 1970 program (appropriation)		Fiscal year 1971 request		House				Senate Armed Services Committee			
				Change from request		Authorized		Change from House		Recommendation	
				Quantity	Amount	Quantity	Amount	Quantity	Amount	Quantity	Amount
HAWK missiles.....			25.6				25.6		-14.8		10.8
Other supporting costs.....	3.2		.9				.9				.9
Spares and repair parts.....	.2		1.1				1.1				1.1
Subtotal.....	3.4		27.6				27.6		-14.8		12.8
Appropriation requiring authorization.....			27.6				27.6		-14.8		12.8

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## AIR FORCE MISSILES

	<i>In millions</i>
Air Force request-----	\$1,544.6
House action-----	-39.3
House Authorization Bill-----	1,505.3
Committee Recommendation-----	1,479.4

*Authorization Request for Air Force Missiles*

The authorization of appropriations for procurement of Air Force missiles covers not only the cost of procuring the missiles, but costs of modifications, spare parts, training kits, support equipment, production base support, and first destination transportation.

*Summary of House Action*

The House approved the request except for deletion of funds for MAVERICK as discussed below and denial of \$14 million authorization requested for prior programs because these previously authorized programs do not require reauthorization.

*Committee Recommendations*

The Committee recommends authorization of \$1,479.4 million, a reduction of \$25.9 million from the House bill. The Committee recommendation has applied \$14 million for prior programs as a financing adjustment to the fiscal year 1971 request, as discussed elsewhere in this report, and also includes the following changes to the House Bill.

*MAVERICK + \$3.1 million*

The MAVERICK is an electro optically guided air-to-ground missile designed to destroy visible hard targets such as tanks and bunkers. The House Bill denied the request for procurement funding based on inadequacy of testing. The Committee recommends \$3.1 million to meet contractual requirements relating to delay in the production

option date. This will permit additional testing without voiding the current contract. The Committee is encouraged by the satisfactory test results achieved to date. However, substantial testing remains to be performed during fiscal year 1971, the results of which will enable Congress to make a wiser decision on the justification for production funds next year. In the R&D account \$24.7 million is provided to continue developmental work.

*FALCON Modification, - \$15 million*

Within the \$226 million requested for missile modifications, the Air Force has included a total of \$15 million to modify some of the existing FALCON air-to-air missiles. The Committee has denied the \$15 million for FALCON modifications.

The FALCON missile has already been previously modified. The Committee sees no benefit in further modifications to this missile. In addition, the Air Force was authorized \$5.5 million last year for research and development in order to modify the FALCON AIM-4D-8 to the AIM-4H configuration. The Air Force should give serious consideration as to whether this program warrants being continued.

The Committee feels that a common heat-seeking missile should be developed for both the Air Force and the Navy.

The other missiles in the fiscal year 1971 program are listed below.

*MINUTEMAN II/III*

*Committee Recommendation*

The Committee recommends approval of \$475.7 million for MINUTEMAN II and III, as requested and as passed by the House.

*Committee Views*

The program force of 1,000 MINUTEMAN Missiles, composed of 800 MINUTEMAN I and 200 MINUTEMAN II was attained in April 1967. All MINUTEMAN I Missiles will be replaced. A portion

have been replaced with MINUTEMAN II which provides improvements in range, payload, accuracy and flexible targeting.

MINUTEMAN III will replace the remaining MINUTEMAN I Missiles. MINUTEMAN III possesses improved survivability, penetration capability, payload, and accuracy over the older systems. MINUTEMAN III has the potential of attacking different targets, and it will be able to carry the necessary penetration aids to reduce vulnerability to enemy defenses.

The 1970 and 1971 requests reflect a slowdown in the previously planned rate of MINUTEMAN III deployment. As of June 30, 1970, the conversion program had progressed to where the force consisted of 490 MINUTEMAN I, 500 MINUTEMAN II, and 10 MINUTEMAN III.

The 1971 request provides for procurement of MINUTEMAN III missiles, continued modification of MINUTEMAN I silos to accept the later configurations, and necessary initial spares for both MINUTEMAN II and III Missiles.

#### *SHRIKE*

This is a defense suppression weapon that uses a radar sensor to locate and home on enemy ground radars. Although it is procured by the Navy, the SHRIKE may be used on the Air Force F-105 and F-4 aircraft.

#### *SHORT RANGE ATTACK MISSILE (SRAM)*

This is a short range attack missile for use on the B-52 and FB-111 bombers to permit destruction of targets without requiring the aircraft to be exposed to enemy terminal defenses.

#### *SPARROW*

This air-to-air missile that is procured by the Navy is used on the Air Force F-4 aircraft. It has a semiactive radar guidance system.

# AIR FORCE MISSILE PROCUREMENT REQUEST—FISCAL YEAR 1971

[In millions of dollars]

	Fiscal year 1970 program (appropriated)		Fiscal year 1971 request		House				Senate Armed Services Committee			
					Change from request		Authorized		Change from House		Recommendation	
	Quantity	Amount	Quantity	Amount	Quantity	Amount	Quantity	Amount	Quantity	Amount	Quantity	Amount
LGM-30C MINUTEMAN II & III.....		447.0		475.7				475.7				475.7
AGM-45A SHRIKE.....		7.1		9.7				9.7				9.7
AGM-69A SRAM.....		10.0		99.5				99.5				99.5
AGM-65A MAVERICK.....				25.0		-25.0				+3.1		3.1
AIM-7E/F SPARROW.....		43.8		14.4				14.4				14.4
Target drones.....		18.7		13.7				13.7				13.7
Modifications.....		176.6		206.0				206.0		-15.0		191.0
Spares and repair parts.....		87.1		64.6		-0.3		64.3				64.3
Other support.....		790.2		671.5				671.5				671.5
Subtotal.....		1,580.5		1,580.1		-25.3		1,554.8		-11.9		1,542.9
Prior-year financing available.....				-132.4				-49.5		-14.0		-63.5
NOA requested for authorization.....		1,448.1		1,530.6				1,505.3				1,479.4
Prior programs to be justified.....				+14.0		-14.0						
Appropriation requiring authorization.....		1,448.1		1,544.6		-39.3		1,505.3		-25.9		1,479.4

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NAVAL VESSELS AND CONVERSION PROGRAM

	<i>In million</i>
Navy Request.....	\$2,728.9
House Action.....	+285.0
House Bill.....	3,013.9
Committee Recommendation.....	2,276.9

*Summary of House Action*

The House approved the request except for \$150 million for prior programs. These funds have been previously authorized and do not require reauthorization.

The House included \$435 million for an additional nuclear attack submarine and advance procurement for a future buy, one submarine tender, a destroyer tender, two research ships, and various landing and service craft.

In addition the Bill included language which would (1) prohibit obligation of any funds appropriated for naval ship construction in the fiscal year 1971 program until the National Security Council has taken a positive position in respect to the construction of a new nuclear-powered attack carrier designated as the CVAN-70, (2) prohibit expenditure of funds in the Bill for the contract procurement of DD 963 class destroyers unless the vessels are constructed at the facilities of at least two different United States shipbuilders, and (3) provide for \$600 million of fiscal year 1971 funds to be expended for work in naval shipyards.

*Committee Views on the 1971 Shipbuilding and Conversion Program*

By the end of fiscal year 1970, the Navy will have approximately 750 ships in the active fleet, a reduction of about 180 ships below the 1968 level and 109 ships below the 1964 level. Of the approximately 750 ships, 47% will be over 20 years of age. While there is no definite age at which a ship ceases to be useful, age is a primary factor leading to increased maintenance costs and obsolescence. The older ships should be replaced when they are no longer economical to operate, repair, or modernize assuming a continued requirement to meet the missions that are assigned to the Navy.

Since 1963, 181 new ships have entered the active fleet, and 84 ships have undergone major conversion. As of May 31, 1970, there were 120 ships authorized and funded for new construction and 47 for conversion that are in various stages of construction/conversion for delivery at a later date.

The Committee recognizes the continuing need for substantial funding for modern ships and weapons to prevent a gradual decaying of naval forces because of obsolescence both of ships and the weapons they employ.

The shipbuilding and conversion program as requested by Department of Defense represents an austere but adequate program for the

forthcoming fiscal year as an increment toward long-deferred modernization of our Navy.

The Committee, in view of the necessity for austerity, recommends deletion of the \$435 million for additional ships added by the House. These additional ships were not recommended by the President in the budget request. Advance funding for the CVAN-70 nuclear carrier is also recommended for deletion because of the absence of a firm executive branch request. This is discussed below.

The Committee observes that there is a continuing escalation of construction costs. In addition there are examples of ships being under construction for excessive periods before the contract is finalized. The Committee believes that a concerted effort is required to control costs and to assure prompt and efficient use of available funds.

*Committee Recommendation: Deletion of House Language Provisions*

(1) The House bill provided that \$600 million of the funds authorized to be appropriated is for expenditure only in naval shipyards. Defense has stated that, considering the ships in the budget request, the expenditure requirement is practically impossible to meet for various reasons. Under these circumstances, the Committee feels it prudent to eliminate this requirement.

(2) The House bill precluded the obligation of 1971 funds until the National Security Council has advised the President of its recommendation concerning construction of the nuclear attack carrier, CVAN-70. The Committee feels that the ships recommended in the 1971 program are vitally needed and that any action that might prevent the orderly implementation of this crucial program should be avoided. The Committee therefore recommends deletion of this provision.

(3) A provision was included in the House bill which precludes expenditure of funds in this Act for the contract procurement of the DD-963 class destroyers unless the procurement planned for such destroyers makes provision for construction at the facilities of at least two different U.S. shipbuilders.

Under the terms of the provision, the limitation would apply only to fiscal year 1971 funds and not to prior appropriations already authorized and made available for the DD 963 class destroyer program. Moreover, in terms of contract administration, the provision raises a number of problems since the precise meaning of the provision has not been fully set forth. For instance, the term, "at least two," raises the question as to the exact number of shipbuilders intended as well as the method of dividing the contractual program between the shipyards involved. In view of these considerations, the Committee decided not to recommend this provision.

*Financing Adjustment of—\$150 million*

These are funds from 1967 and prior programs which are not scheduled for obligation until after June 30, 1971. A full discussion is pre-



sented elsewhere in this report regarding the application of these funds as a financing adjustment to the fiscal year 1971 request.

*Disapproval of Funds for Nuclear Attack Carrier (CVAN-70)—  
\$152 million*

The budget for fiscal year 1971 requests authorization and appropriation of \$152 million for advance procurement leading to the construction of the third *Nimitz* class nuclear attack aircraft carrier known as CVAN-70. The President in submitting the budget stated that the funds would not be obligated until completion of studies in progress to assess future requirements for attack carriers.

The studies by the National Security Council are still in progress and the position of the President remains unchanged. Under these circumstances, it is the position of the Committee that the request of \$152 million for advance procurement be disapproved. It should be emphasized that the committee's action in this matter should not be construed as a rejection in principle for an additional nuclear carrier, but was based on the lack of a firm budget request from the executive branch for funds.

A brief description of the major programs recommended in this Bill follows.

*Nuclear Attack Submarines (SSN)*

The Committee recommends \$430.5 million for full funding of 3 submarines (\$498 million less \$67.5 million previously appropriated for long lead items) and advance funding of \$45 million for two additional submarines. This, with prior funding provides advance procurement for four nuclear submarines for which the remaining funding will be required in fiscal year 1972.

*Nuclear Guided Missile Frigate*

The nuclear frigate formerly known as DXGN is now designated the DLGN 38 class. The Committee recommends \$182.8 million for full funding of one frigate (\$213.8 million less \$31 million previously appropriated for long lead items). This is the second ship of this class to be authorized. The nuclear guided missile frigate has the versatility of the destroyer plus the advantages of nuclear power and the most modern weapons and sensors.

*Destroyers (DD 963 class)*

The DD 963 class destroyer will be heavier than the present destroyer and will be fast enough to escort attack carriers. The Committee recommends full funding of \$459.5 million authorized for six destroyers (\$506.8 million less \$47.3 million previously appropriated for

long lead items). This is the second year of a sizable program to replace World War II destroyers.

*General Purpose Assault Ship (LHA)*

The bill proposes and the Committee recommends funds in the amount of \$286 million (\$302 million less \$16 million previously appropriated for long lead items) for two LHA's and \$27.5 million for advance items for two more ships. This is a continuation of the program to modernize the amphibious assault ships. Each LHA will replace three slower World War II ships now required to perform the same task.

*Remaining New Construction*

The program also contains two research ships and a number of the smaller sized service craft.

CONVERSION AND MODERNIZATION PROGRAM

*Conversion of Fleet Ballistic Missile Submarines (SSBN)*

The bill contains funds for conversion of six ballistic missile submarines to the POSEIDON configuration. Funds for this program total \$292.4 million (\$436 million less \$143.6 million of previously approved advance funds). In addition \$78.8 million are recommended as leadtime conversions in subsequent years.

*Guided Missile Frigate (DLG)*

A net of \$115.8 million is provided for four conversions. An updated, more effective surface-to-air guided missile system and improved search and fire control radars and computers are being installed.

*Ocean Minesweepers (MSO)*

The bill provides \$22.4 million for conversion of 5 ocean minesweepers. Machinery and electronic systems will be rehabilitated and a new mine hunting sonar will be installed.

Other costs that are included in the authorization of appropriations of naval vessels are as follows.

- (1) \$20.7 million for the third and final increment for nuclear propulsion spares for the *Nimitz* class nuclear attack carriers.
- (2) \$76.6 million for outfitting spares.
- (3) \$83.3 million for post delivery correction of trial deficiencies.
- (4) \$210 million to pay claims and cost growth related to prior years' programs.

# NAVY SHIPBUILDING AND CONVERSION PROCUREMENT REQUEST—FISCAL YEAR 1971

[Dollar amounts in millions]

	Fiscal year 1970 program (appropriated)		Fiscal year 1971 request		House				Senate Armed Services Committee			
					Change from request		Authorized		Change from House		Recommendation	
	Quantity	Amount	Quantity	Amount	Quantity	Amount	Quantity	Amount	Quantity	Amount	Quantity	Amount
<b>NEW CONSTRUCTION</b>												
CVAN attack aircraft carrier (nuclear).....	1	\$510.0										
Less advance procurement.....		-132.9										
Net.....	1	377.1										
Advance procurement current year.....				\$152.0				\$152.0		-\$152.0		
SSN submarine (nuclear).....	3	536.0	3	498.0	+1	+\$166.0	4	664.0	-1	-166.0	3	\$498.0
Less advance procurement.....		-31.5		-67.5				-67.5				-67.5
Net.....	3	504.5	3	430.5	+1	+166.0	4	596.5	-1	-166.0	3	430.5
Advance procurement current year.....	(5)	110.0		45.0		+22.5		67.5		-22.5		45.0
DLGN new guided missile frigate (nuclear).....	1	222.0	1	213.8			1	213.8			1	213.8
Less advance procurements.....		-26.0		-31.0				-31.0				-31.0
Net.....	1	196.0	1	182.8			1	182.8			1	182.8
Advance procurement current year.....	(4)	77.9		38.5				38.5				38.5
DD new destroyer (DD-963).....	5	342.7	6	506.8			6	506.8			6	506.8
Less advance procurement.....		-25.0		-47.3				-47.3				-47.3
Net.....	5	317.7	6	459.5			6	459.5			6	459.5
Advance procurement current year.....	(8)	17.6										
LHA general-purpose assault ship.....	2	287.7	2	302.0			2	302.0			2	302.0
Less advance procurement.....		-17.0		-16.0				-16.0				-16.0
Net.....	2	270.7	2	286.0			2	286.0			2	286.0
Advance procurement current year.....	(2)	17.0		27.5				27.5				27.5
AS submarine tender.....					+1	+102.0	1	102.0	-1	-102.0		
AD destroyer tender.....					+1	+103.0	1	103.0	-1	-103.0		

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AGOR research ship.....			2	7.3	+2	+7.5	4	14.8	-2	-7.5	2	7.3
PGM motor gun boat.....	2	1.1										
Landing craft.....		7.6				+10.0		10.0		-10.0		
Service craft.....		13.2		15.6		+24.0		39.6		-24.0		15.6
Total new construction.....	14	1,910.4	14	1,644.7	+5	+435.0	19	2,079.7	-5	-587.0	14	1,492.7
<b>CONVERSION</b>												
SSBN fleet ballistic missile submarine.....	4	298.3	6	436.0			6	436.0			6	436.0
Less advance procurement.....		-102.8		-143.6				-143.6				-143.6
Net.....		195.5		292.4				292.4				292.4
Advance procurement current year.....	(13)	154.0		78.8				78.8				78.8
DLG Guided missile frigate.....	1	39.0	4	150.0			4	150.0			4	150.0
Less advance procurement.....		-15.0		-34.2				-34.2				-34.2
Net.....		24.0		115.8				115.8				115.8
Advance procurement current year.....	(4)	19.0		34.2				34.2				34.2
MSO ocean minesweeper.....	10	47.9	5	26.0			5	26.0			5	26.0
Less advance procurement.....		-7.2		-3.6				-3.6				-3.6
Net.....		40.7		22.4				22.4				22.4
Advance procurement current year.....												
Other conversions.....												
Total conversion.....	15	433.2	15	543.6			15	543.6			15	543.6
<b>OTHER</b>												
CVAN Nuclear spares.....		48.0		20.7				20.7				20.7
Outfitting material.....		56.4		76.6				76.6				76.6
Postdelivery.....		23.6		83.3				83.3				83.3
Claims and other cost increases.....		167.0		210.0				210.0				210.0
Advanced contract design.....												
PC patrol craft (cost sharing).....		1.9										
Total other.....		296.9		390.6				390.6				390.6
Subtotal.....		2,640.5		2,578.9		+435.0		3,013.9		-587.0		2,426.9
Prior programs to be justified.....				+150.0		-150.0						
Prior-year financing available.....										-150.0		-150.0
Appropriation requiring authorization.....		2,640.5		2,728.9		+285.0		3,013.9		-737.0		2,276.9

Note: Figures in parentheses ( ) non add— Indicates number of ships supported in future programs.

## ARMY TRACKED COMBAT VEHICLE

	<i>In millions</i>
Army request.....	\$207.2
House action.....	-1.0
House bill.....	206.2
Committee recommendation.....	182.2

*Authorization Request for Army Tracked Combat Vehicles*

The authorization request provides for procurement of a variety of vehicles including personnel carriers, command post carrier and the M60A1E2 tank, as well as other vehicles, spares and spare parts and production base support.

*Summary of House Action*

The House approved the request except for \$1 million of authorization requested in prior programs. These previously authorized prior programs do not require reauthorization.

*Committee Recommendation*

The Committee recommends authorization of \$182.2 million, a reduction of \$24 million to the House Bill. One million of the reduction applies prior program funds, that will not be used in fiscal year 1971, as financing for the fiscal year 1971 request. This is discussed elsewhere in this report. The remaining \$23 million is associated with the termination of the M60A1E2 tank program also discussed elsewhere in this report.

Following is a description of the tracked combat vehicles recommended for procurement.

*M-113A1 Armored Personnel Carrier*

The armored personnel carrier is a diesel-powered, full tracked, lightly armored vehicle that will transport 12 troops plus a driver. The light aluminum armor protects personnel from shell fragments and small arms fire. The vehicle can swim, be air dropped and can travel cross country at speeds up to 40 miles per hour. Variations in design permit utilization as a weapons platform, cargo carrier, flame thrower and command post.

The vehicles being procured are to replace losses to the inventory.

*Carrier, Command Post M577A1*

The command post is an amphibious, armor protected, self-contained, mobile command post or fire direction center for mechanized infantry, armored cavalry, and self-propelled artillery units. It is a member of the M113 family and is on the same chassis.

The 1971 procurement will replace in part losses to the inventory.

*Carrier, CHAPARRAL, XM730*

The CHAPARRAL carrier uses the basic M113 chassis and transports the CHAPARRAL missile launcher. These carriers are being procured in phase with procurement of the missile system to meet the activation of the approved CHAPARRAL/VULCAN battalions.

The procurement will meet Army requirements and no further buying is anticipated.

*M60 Armored Bridge Launcher*

The bridge launcher is an M60 tank chassis that mounts a 60 foot long scissoring bridge that can be emplaced within minutes while the launcher is under direct fire, permitting tanks and mechanized vehicles to cross gaps with a minimum loss of time.

The fiscal year 1971 buy will in part replace attrition.

*M728 Combat Engineer Vehicle*

The M728 is an M60 tank chassis that mounts a 165 mm demolition gun, a .50-caliber machine gun, and a 7.62 mm machine gun. The vehicle is equipped with a bulldozer blade and a 60,000 pound capacity winch. This vehicle provides the combat engineer a capability to perform obstacle removal tasks under hostile fire in support of major combat elements.

*M60A1 Tank*

The M60A1 tank is the standard medium tank with a diesel engine and a 105 mm gun as primary armament. The tank weighs about 52.5 tons, has a cruising range of 310 miles, and can attain a speed of 30 miles per hour. Minimum production is continued to phase out the old M48 series tank which are stated to be obsolete.

Since the Army will be able to utilize tank chassis previously procured for the M60A1E2 tanks, the funding request of \$67.6 million has been reduced by \$10.9 million. The Committee will expect a similar reduction in funding in the fiscal year 1972 request, reflecting use of the remaining M60A1E2 chassis.

*M60A1E2 Tank*

The Committee recommends deleting the \$12.1 million requested, as discussed elsewhere in this report and recommends termination of the program.

## ARMY TRACKED COMBAT VEHICLES REQUEST—FISCAL YEAR 1971

[Dollar amounts in millions]

	Fiscal year 1970 program (appropriated)		Fiscal year 1971 request		House				Senate Armed Services Committee			
					Change from request		Authorized		Change from House		Recommendation	
	Quantity	Amount	Quantity	Amount	Quantity	Amount	Quantity	Amount	Quantity	Amount	Quantity	Amount
M113 vehicle family:												
M113A1 personnel carrier.....	645	\$23.5	1,125	\$33.7			1,125	\$33.7			1,125	\$33.7
M106A1 107 mm. mortar carrier.....	302	12.4										
M577A1 command post carrier.....	334	15.6	315	12.0			315	12.0			315	12.0
M125A1 81 mm. mortar carrier.....	202	8.7										
XM741 carrier FT (Vulcan).....												
XM carrier FT (Chaparral).....	116	7.3	135	6.4			135	6.4			135	6.4
Subtotal M113 family.....	1,599	67.5	1,575	52.1			1,575	52.1			1,575	52.1
M551 ARAAV (General Sheridan).....	183	44.2		4.4				4.4				4.4
Less advance procurement.....		-20.0										
Net.....	183	24.2		4.4				4.4				4.4
Medium tank family:												
Chassis, transporter, bridge launcher.....	18	2.5	30	4.0			30	4.0			30	4.0
M728 combat engineer vehicle.....	42	10.2	30	7.5			30	7.5			30	7.5
M60A1E2 tank combat 152 mm. gun.....		3.8		12.1				12.1		-\$12.1		
Retrofit kits f/tank, FT, 105 mm. gun.....		6.5		.5				.5				.5
M60A1 tank combat, FT, 105 mm. gun.....	300	44.9	300	67.6			300	67.6		-10.9	300	56.7
Less advance procurement.....												
Net.....	300	44.9	300	67.6			300	67.6		-10.9	300	56.7
Miscellaneous:												
Howitzer, medium 155 mm. SPM 109 (MOD).....				3.8				3.8				3.8
Shop set DS/GS (Vulcan).....	12	3.9	4	1.3			4	1.3			4	1.3
Item less than \$500,000.....		1.2		.8				.8				.8
First destination transportation.....		3.6		3.6				3.6				3.6
Repair parts and support material.....		9.2		5.9				5.9				5.9
Production base support.....		18.0		42.6				42.6				42.6
All other.....		5.6										
Subtotal.....		201.1		206.2				206.2		-23.0		183.2
Prior year financing available.....										-1.0		-1.0
Prior programs to be justified.....				+1.0		-\$1.0						
Appropriation requiring authorization.....				207.2		-1.0		206.2		-24.0		182.2

# MARINE CORPS TRACKED COMBAT VEHICLES

	<i>In millions</i>
Marine Corps request.....	\$48.7
House action.....	
House bill.....	48.7
Committee recommendation.....	47.4

The Marine request and the House bill totals \$48.7 million. The Committee recommends \$47.4 million. The Marine Corps recommendation for deferral of \$1.3 million for the training device for the new amphibious vehicles because development has not been completed is accepted by the Committee.

The vehicles proposed for procurement are part of the new family of amphibious assault vehicles approved by the Congress last year. These vehicles are needed to replace the current Marine Corps amphibious vehicle family that has been in service since 1955.

The new family of vehicles has been under development since 1963, and the rigorous test program indicates a significant degree of superiority over the current vehicle. It costs less to buy and maintain and is faster, both on land and in water. It possesses greater maneuverability, has a greater cruising range, and affords greater troop safety.

Vehicles requested for procurement this year include the basic amphibious assault vehicle (LVTP-7), a command and control version (LVTC-7), and a recovery vehicle version (LVTR-7).



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## MARINE CORPS TRACKED COMBAT VEHICLE REQUEST—FISCAL YEAR 1971

[Dollar amounts in millions]

	Fiscal year 1970 program (appropriated)		Fiscal year 1971 request		House				Senate Armed Services Committee			
					Change from request		Authorized		Change from House		Recommendation	
	Quantity	Amount	Quantity	Amount	Quantity	Amount	Quantity	Amount	Quantity	Amount	Quantity	Amount
Amphibious vehicle family:												
LVTP-7.....	38	\$10.4	262	\$33.5			262	\$33.5			262	\$33.5
LVTCX-2 (LVTC-7).....			21	3.3			21	3.3			21	3.3
LVTRX-2 (LVTR-7).....			15	2.4			15	2.4			15	2.4
Miscellaneous:												
LVTP-7 training device.....			1	1.3			1	1.3	-1	-\$1.3		
Collateral equipment.....		5.6		.7				.7				.7
First destination transportation.....		.3		.5				.5				.5
Spares and repair parts.....		.9		5.0				5.0				5.0
Items less than \$500,000.....		1.2		2.0				2.0				2.0
All other.....		19.3										
Subtotal.....		37.7		48.7				48.7		-1.3		47.4
Appropriation requiring authorization.....				48.7				48.7		-1.3		47.4

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### OTHER WEAPONS

The Other Weapons category includes individual and crew served weapons other than those procured as tracked combat vehicles. This is the first year that this category has required authorization. The fiscal year 1971 authorization request is significantly below the funding provided in fiscal years 1969 and 1970.

With one exception, the Committee recommends approval of the House Bill which provides \$68.2 million for the Army, \$2.8 million for the Navy, and \$1.4 million for the Marine Corps. Army has identified \$1 million for programs previously approved that will not be used until fiscal year 1972. The Committee recommends the use of the \$1 million as financing for the fiscal year 1971 request in consonance with recommendations in other procurement categories and as described elsewhere in this report.

The Committee has eliminated the language in the House bill which would require certification to the Congress by the Secretary of the Army that at least three U.S. production sources of the M-16 rifle be available throughout 1971 before obligation of funds for rifle procurement. The Committee feels that the House language is overly restrictive and will only lead to an unnecessary increase in the cost of the M-16 rifles.

A brief description of the weapons being procured follows:

*Machine Gun, 7.62 mm, M60*

The M60 machine gun is employed by dismounted ground troops, ground vehicles, and from helicopters. It is the only Standard A machine gun in the Army inventory.

*Machine Gun, 7.62 mm, M73*

The M73 is a co-axial machine gun used on tanks, reconnaissance vehicles and combat engineer vehicles.

*Machine Gun, Cal. 50, M85*

The M85 is designed for the M19 cupola of the M60 tank family and combat engineer vehicles to destroy lightly armored vehicles, to engage aircraft, and for reconnaissance by fire.

*Rifle, 5.56 mm, M16A1*

The M16A1 Rifle is a lightweight, air cooled, gas operated rifle with a 20 round detachable magazine. It is the basic infantry weapon and may be fired from the shoulder or hip, semi or full automatic.

*Launcher, Grenade, 40 mm, M203*

This attachment to the M16A1 rifle enables firing of the 40 mm grenade. It replaces the M79 individual weapons.

*Laser Rangefinder AN/GVS-3*

This is a new lightweight rangefinder for forward observers for artillery and mortar units. It is much more accurate than current rangefinders.

*XM202 Multishot Launcher*

The multishot launcher provides for the Marine Corps an organic, lightweight, shoulder-fired weapon capable of neutralizing point targets by rapid fire incendiary rockets.

*60 mm Mortar*

The 60 mm Mortar is the Marine Corps rifle company's sole indirect fire weapon. The fiscal year 1971 quantity will fulfill Marine requirements for the Mortar.

# ARMY OTHER WEAPONS PROCUREMENT REQUEST—FISCAL YEAR 1971

[Dollar amounts in millions]

	Fiscal year 1970 program (appropriated)			Fiscal year 1971 request			House			Senate Armed Services Committee		
	Quantity	Amount		Quantity	Amount		Change from request		Authorized	Change from House		Recommendation
							Quantity	Amount		Quantity	Amount	
Components for special tests.....		\$1.0			\$0.7							\$0.7
Machinegun, 7.62 mm., M60.....	12,056	6.6		6,000	4.0				6,000			4.0
Machinegun, 7.62 mm., M73.....	1,882	3.0		486	1.7				486			1.7
Machinegun, Cal. 50, M85.....	360	1.8		360	1.8				360			1.8
Rifle, 5.56 mm., M16A1.....	599,562	64.5		253,738	27.1				253,738			27.1
Lunar laser range finder 40 mm., 1/M16A1 rifle												
M203.....				17,500	5.3				17,500			5.3
Laser rangefinder AN/GVS-3.....				17,200	2.2				17,200			2.2
First test then \$500,000.....		2.9			2.9							2.9
First test then \$500,000.....		2.9			2.9							2.9
First test then \$500,000.....		2.9			2.9							2.9
Repair parts and support material.....		16.6			10.6				10.6			10.6
Production base support.....		(0)			13.6				13.6			13.6
All other.....		9.9										
Subtotal.....		105.8			68.2				68.2			68.2
Prior-year financing available.....					+1.0							-1.0
Prior programs to be justified.....					69.2							67.2
Appropriation requiring authorization.....												

1 \$20,100,000 appropriated in PEMA activity 11—Production base support.

## NAVY AND MARINE CORPS OTHER WEAPONS PROCUREMENT REQUEST--FISCAL YEAR 1971

(Dollar amounts in millions)

	Fiscal year 1970 program (appropriated)			Fiscal year 1971 request			House			Senate Armed Services Committee		
	Quantity	Amount		Quantity	Amount		Change from request	Authorized	Change from House	Recommendation	Quantity	Amount
Navy:												
5"/54 lt. wt. gun mount MK45 (training)	1	\$1.3		1	\$1.3			1	\$1.3		1	\$1.5
Rifle 5.56 mm. M-16	9,790	1.4		1,290	.2			1,290			1,290	.3
Mini gun/mount		1.7		25	.5			25	.5		25	.2
Items less than \$500,000		2.8			.8				.8			.8
All other												
Subtotal		7.2			2.8				2.8			2.8
Appropriation requiring authorization					2.8				2.8			2.8
Marine Corps:												
Launcher, multishot XM202	1,115	.9		284	1			284	1		284	1
Mortar, 60 mm	1,112	.7		382	1.2			382	1.2		382	1.2
First destination transportation		.1			.1							
Spares and repair parts		.9			1.5				1.5			1.5
Items less than \$500,000		2.8			1.5				1.5			1.5
All other		4.9										
Subtotal		10.3			4.4				4.4			4.4
Appropriation requiring authorization					4.4				4.4			4.4

## TITLE II—RESEARCH, DEVELOPMENT, TEST, AND EVALUATION

### Sec. 201—Research, Development, Test, and Evaluation Authorizations

The tabulations below show a comparison of the amounts authorized and appropriated for research, development, test, and evaluation in fiscal year 1970 with the amounts requested in the President's budget for fiscal year 1971, as adjusted by the actions of the House (H.R. 17123), and as recommended by the Committee.

#### RESEARCH, DEVELOPMENT, TEST, AND EVALUATION COMPARATIVE SUMMARY OF ACTIONS ON AUTHORIZATION REQUEST

(In millions of dollars)

	Fiscal year 1970		Fiscal year 1971		
	Authorized	Appropriated	Request	H.R. 17123	As reported by the Committee
Army.....	\$1,646.0	\$1,596.8	\$1,717.9	\$1,647.9	\$1,627.2
Navy (including Marine Corps).....	1,968.2	2,186.4	2,197.3	2,197.3	2,209.3
Air Force.....	3,156.6	3,060.6	2,909.7	2,909.7	2,736.0
Defense agencies.....	450.2	450.0	470.7	460.7	450.0
Emergency fund.....	75.0	75.0	50.0	50.0	50.0
Total R. D. T. & E. program.....	7,296.0	7,368.8	7,345.6	7,265.6	7,072.5
Request for authorization of prior year funds.....			56.0		56.0
Prior year funds available.....					56.0
Total R.D.T. & E. authorization.....	7,296.0	7,368.8	7,401.6	7,265.6	7,016.5

#### ADJUSTMENTS TO FISCAL YEAR 1971 AUTHORIZATION REQUEST RECOMMENDED BY SENATE ARMED SERVICES COMMITTEE

R.D.T. & E.

(Dollars in millions)

	Fiscal year 1971 request	H.R. 17123		Senate Armed Services Committee	
		Change	Authorized	Change	Recommended
Army.....	\$1,717.9	—\$70.0	\$1,647.9	—\$20.7	\$1,627.2
Navy (including Marine Corps).....	2,197.3		2,197.3	+12.0	2,209.3
Air Force.....	2,909.7	—10.0	2,909.7	—173.7	2,736.0
Defense agencies.....	470.7		460.7	—10.7	450.0
Emergency fund.....	50.0		50.0		50.0
Total R.D.T. & E. program.....	7,345.6	—80.0	7,265.6	—193.1	7,072.5
Request for authorization of prior year funds.....	56.0	—56.0		—56.0	56.0
Prior year funds available.....					56.0
Total R.D.T. & E. authorization.....	7,401.6	—136.0	7,265.6	—249.1	7,016.5

#### Authorization Requested

The Department of Defense requested authorization in the amount of \$7,401,600,000 which includes \$56 million more than is needed to

finance the fiscal year 1971 program. Authorization for the \$56 million was requested to permit appropriation of this additional amount in fiscal year 1971 if these funds, which were appropriated in fiscal year 1970 and prior years, were rescinded by the Congress and therefore were not available after June 30, 1971, to support those prior year programs.

The House denied authorization of the \$56 million and reduced the Department of Defense request by an additional \$80 million resulting in an authorization of \$7,265,600,000.

#### *Summary of Committee Decisions*

The Committee is recommending authorization of \$7,016,500,000. This represents a reduction of \$385,100,000 from the amount requested by the Department of Defense, and is \$249,100,000 below the amount passed by the House. This recommendation is a net reduction which results from decreases totaling \$464,100,000 that are offset in part by an increase of \$79,000,000 representing the transfer of this amount for the S-3A carrier based antisubmarine warfare aircraft from Procurement to the Research, Development, Test, and Evaluation appropriation, as discussed elsewhere in this report. It also is \$279,542,000 less than the amount authorized and \$352,320,000 less than the amount appropriated for fiscal year 1970.

#### *General Discussion of Reductions*

The Committee considers that a comprehensive review of the program details is necessary in arriving at a meaningful program for research and development. The importance of providing an austere but adequate level of support, in a program which spans so broad a range of science and technology that reaches from the largest aerospace contractors and Department of Defense laboratories down to the basic research scientist in our colleges and universities, must be recognized. Inherent in research and development is the need to provide continuity of effort to insure the timely and orderly achievement of development goals so that the advanced weaponry essential to our qualitative superiority over potential enemies will be available when required. In this same period of declining procurement appropriations, which provide a significant measure of support for contractors' research and development efforts, there clearly is a need to maintain a strong technological base.

With these thoughts in mind, and with a full awareness of the need to devote a greater fraction of our total national resources to the growing demands of our important non-defense programs, the Committee conducted extensive and searching hearings directed toward the detailed review and evaluation of the many programs proposed by the military services and Defense agencies for research, development, test, and evaluation in fiscal year 1971. These efforts were conducted largely by the Ad Hoc Subcommittee on Research and Development.

The authorization, as recommended by the Committee, is the lowest amount authorized and appropriated since fiscal year 1966. Adjusted for inflation and comparability, it is the lowest amount since fiscal year 1960.

The Committee recommendations, with the one exception of the S-3A aircraft, provide for no increases in authorization for research

and development above the amounts requested by the Department of Defense. The individual changes recommended by the Committee are identified in the tables which follow:

# ADJUSTMENTS TO FISCAL YEAR 1971 AUTHORIZATION REQUEST RECOMMENDED BY SENATE ARMED SERVICES COMMITTEE

R.D.T. & E. ARMY

\* [In millions of dollars]

	Fiscal year 1971 request	H.R. 17123		Senate Armed Services Committee	
		Change	Authorized	Change	Recommendation
<b>Military sciences:</b>					
Defense research sciences.....	\$69.4		\$69.4	-\$3.8	\$65.6
Military personnel performance.....	2.8		2.8	-.3	2.5
Military training leadership.....	3.2		3.2	-.5	2.7
Army operations, foreign environment.....	2.1		2.1	-1.0	1.1
General biological investigations.....	8.0		8.0	-2.1	5.9
General chemical investigations.....	8.3		8.3	-.9	7.4
Studies and analysis.....	9.2		9.2	-1.0	8.2
Other.....	73.2		73.2		73.2
<b>Total, military sciences.....</b>	<b>176.2</b>		<b>176.2</b>	<b>-9.6</b>	<b>166.6</b>
<b>Aircraft and related equipment:</b>					
Advanced helicopter development.....	21.0		21.0	-4.0	17.0
AH-56A Cheyenne helicopter.....	17.6		17.6	-17.6	
Other.....	71.6		71.6		71.6
<b>Total, aircraft.....</b>	<b>110.2</b>		<b>110.2</b>	<b>-21.6</b>	<b>88.6</b>
<b>Missiles and related equipment:</b>					
Surface-to-air missile (SAM-D).....	89.3		89.3	-15.0	74.3
Advanced ballistic missile defense.....	158.0		158.0	-20.0	138.0
Other.....	649.1		649.1		649.1
<b>Total, missiles.....</b>	<b>896.4</b>		<b>896.4</b>	<b>-35.0</b>	<b>861.4</b>
<b>Military astronautics and related equipment:</b>					
Strategic Army communications.....	7.6		7.6	-2.2	5.4
Other.....	3.1		3.1		3.1
<b>Total, astronautics.....</b>	<b>10.7</b>		<b>10.7</b>	<b>-2.2</b>	<b>8.5</b>
<b>Ships, small craft and related equipment.....</b>	<b>1.1</b>		<b>1.1</b>		<b>1.1</b>
<b>Ordnance, combat vehicles, and related equipment:</b>					
Lethal chemical investigations.....	2.2		2.2	-.5	1.7
Lethal chemical munitions concepts.....	1.0		1.0	-.3	.7
Tracked and special vehicle.....	9.8		9.8	-7.5	2.3
Other.....	140.2		140.2		140.2
<b>Total, ordnance.....</b>	<b>153.2</b>		<b>153.2</b>	<b>-8.3</b>	<b>144.9</b>
<b>Other equipment:</b>					
Project MALLARD.....	14.0		14.0	-14.0	
Other.....	303.8		303.8		303.8
<b>Total, other equipment.....</b>	<b>317.8</b>		<b>317.8</b>	<b>-14.0</b>	<b>303.8</b>
<b>Programwide management and support.....</b>	<b>52.3</b>		<b>52.3</b>		<b>52.3</b>
<b>Total Army R.D.T. &amp; E. program.....</b>	<b>1,717.9</b>	<b>-\$70.0</b>	<b>1,647.9</b>	<b>-\$20.7</b>	<b>1,627.2</b>
Request for authorization of prior-year funds.....	18.0	-18.0			
Prior-year financing available.....				-18.0	-18.0
<b>Total Army R.D.T. &amp; E. authorization.....</b>	<b>1,735.9</b>	<b>-\$88.0</b>	<b>1,647.9</b>	<b>-\$38.7</b>	<b>1,609.2</b>

See footnote at end of table, p. 73.



## R.D.T. &amp; E., NAVY

(In millions of dollars)

	Fiscal year 1971 request	H.R. 17123		Senate Armed Services Committee	
		Change	Authorized	Change	Recom- mendation
<b>Military sciences:</b>					
Defense research sciences.....	\$106.6		\$106.6	-\$2.3	\$104.3
Education and training development.....	3.0		3.0	-.5	2.5
Studies and analyses, Navy.....	9.2		9.2	-.2	9.0
Other.....	23.4		23.4		23.4
<b>Total, military sciences.....</b>	<b>142.2</b>		<b>142.2</b>	<b>-3.0</b>	<b>139.2</b>
<b>Aircraft and related equipment:</b>					
Destroyer helicopter system.....	13.5		13.5	-8.0	5.5
F14B/C.....	50.2		50.2	-5.2	45.0
S-3A.....	208.0		208.0	+79.0	287.0
Other.....	422.3		422.3		422.3
<b>Total, aircraft.....</b>	<b>694.0</b>		<b>694.0</b>	<b>+65.8</b>	<b>759.8</b>
<b>Missiles and related equipment:</b>					
Air launched/surface launched anti- ship missile (Harpoon).....	21.0		21.0	-14.0	7.0
Point defense system development.....	24.5		24.5	-13.5	11.0
Other.....	448.8		448.8		448.8
<b>Total, missiles.....</b>	<b>494.3</b>		<b>494.3</b>	<b>-27.5</b>	<b>466.8</b>
<b>Military astronautics and related equip- ment.....</b>	<b>29.1</b>		<b>29.1</b>		<b>29.1</b>
<b>Ships, small craft and related equipment:</b>					
Advanced surface ship sonar devel- opment.....	11.0		11.0	-8.0	3.0
Surface effect ships.....	20.0		20.0	-10.0	10.0
ASW acoustic warfare.....	8.4		8.4	-2.0	6.4
Other.....	338.1		338.1		338.1
<b>Total, ships.....</b>	<b>377.5</b>		<b>377.5</b>	<b>-20.0</b>	<b>357.5</b>
<b>Ordnance, combat vehicles, and related equipment.....</b>	<b>89.0</b>		<b>89.0</b>		<b>89.0</b>
<b>Other equipment:</b>					
Laboratory independent exploratory development.....	13.1		13.1	-3.1	10.0
Manpower effectiveness.....	1.9		1.9	-.2	1.7
Other.....	211.7		211.7		211.7
<b>Total, other equipment.....</b>	<b>226.7</b>		<b>226.7</b>	<b>-3.3</b>	<b>223.4</b>
<b>Programwide management and support.....</b>	<b>144.5</b>		<b>144.5</b>		<b>144.5</b>
<b>Total, Navy R.D.T. &amp; E. program.....</b>	<b>2,197.3</b>		<b>2,197.3</b>	<b>+12.0</b>	<b>2,209.3</b>
Request for authorization of prior year funds.....	15.0	-\$15.0			
Prior year financing available.....				-15.0	-15.0
<b>Total, Navy R.D.T. &amp; E. au- thorization.....</b>	<b>2,212.3</b>	<b>-15.0</b>	<b>2,197.3</b>	<b>-3.0</b>	<b>2,194.3</b>

## R.D.T. &amp; E., AIR FORCE

(In millions of dollars)

	Fiscal year 1971 request	H.R. 17123		Senate Armed Services Committee	
		Change	Authorized	Change	Recom- mendation
<b>Military sciences:</b>					
Innovations in education and training.....	\$3.5		\$3.5	-\$0.2	\$3.3
Studies and analyses.....	.3		.3	-.3	
Other.....	130.8		130.8		130.8
<b>Total, military sciences.....</b>	<b>134.6</b>		<b>134.6</b>	<b>-.5</b>	<b>134.1</b>
<b>Aircraft and related equipment:</b>					
Light intratheater transport.....	2.0		2.0	-2.0	
Advanced fire control/missile technology.....	2.8		2.8	-2.8	
Subsonic cruise armed decoy.....	33.6		33.6	-33.6	
CONUS air defense interceptor.....	2.5		2.5	-2.5	
Advanced tanker.....	.5		.5	-.5	
B-1.....	100.0		100.0	-50.0	50.0
F-111 squadrons.....	48.2		48.2	-6.4	41.8
Other.....	641.7		641.7		641.7
<b>Total, aircraft.....</b>	<b>831.3</b>		<b>831.3</b>	<b>-97.8</b>	<b>733.5</b>
<b>Missiles and related equipment:</b>					
Advanced ballistic reentry system.....	105.0		105.0	-5.0	100.0
Short range air-to-air missile.....	37.2		37.2	-29.2	8.0
MINUTEMAN rebasing.....	77.0		77.0	-27.0	50.0
Other.....	543.6		543.6		543.6
<b>Total, missiles.....</b>	<b>762.8</b>		<b>762.8</b>	<b>-61.2</b>	<b>701.6</b>
<b>Military astronautics and related equipment.....</b>	<b>437.7</b>		<b>437.7</b>		<b>437.7</b>
<b>Ordnance, combat vehicles and related equipment:</b>					
Armament/ordnance development.....	11.0		11.0	-7.0	4.0
Truck interdiction.....	10.0		10.0	-5.0	5.0
Other.....	57.3		57.3		57.3
<b>Total, ordnance.....</b>	<b>78.3</b>		<b>78.3</b>	<b>-12.0</b>	<b>66.3</b>
<b>Other equipment:</b>					
Human resources.....	4.7		4.7	-.5	4.2
Project MALLARD.....	1.7		1.7	-1.7	
Other.....	353.2		353.2		353.2
<b>Total, other equipment.....</b>	<b>359.6</b>		<b>359.6</b>	<b>-2.2</b>	<b>357.4</b>
<b>Programwide management and support.....</b>	<b>305.4</b>		<b>305.4</b>		<b>305.4</b>
<b>Total Air Force R.D.T. &amp; E. program.....</b>	<b>2,909.7</b>		<b>2,909.7</b>	<b>-173.7</b>	<b>2,736.0</b>
Request for authorization of prior year funds.....	18.0	-\$18.0			
Prior year financing available.....				-18.0	-18.0
<b>Total Air Force R.D.T. &amp; E. authorization.....</b>	<b>2,927.7</b>	<b>-18.0</b>	<b>2,909.7</b>	<b>-191.7</b>	<b>2,718.0</b>

## R.D.T. &amp; E., DEFENSE AGENCIES

[Dollars in millions]

	Fiscal year 1971 request	H.R. 17123		Senate Armed Services Committee	
		Change	Authorized	Change	Recommendation
ARPA PROGRAM					
Military sciences:					
Defense research sciences (ARPA).....	\$42.7		\$42.7	—\$6.0	\$36.7
Advanced engineering (ARPA).....	17.2		17.2	—10.2	7.0
Other.....	18.0		18.0		18.0
Total, military sciences.....	77.9		77.9	—16.2	61.7
Missiles and related equipment.....	66.0		66.0		66.0
Other equipment:					
Overseas defense research.....	21.3		21.3	— .5	20.8
Other.....	57.5		57.5		57.5
Total, other equipment.....	78.8		78.8	— .5	78.3
ARPA R.D.T. & E., total.....	222.7	1 —\$6.6	216.1	1 —10.1	206.0
DCA PROGRAM					
Military astronautics and related equipment.....	3.0		3.0		3.0
Other equipment.....	26.9		26.9	—2.4	24.5
DCA R.D.T. & E., total.....	29.9	1 —2.4	27.5		27.5
DASA PROGRAM					
Military sciences.....	44.6		44.6		44.6
Other equipment.....	67.1		67.1		67.1
DASA R.D.T. & E., total.....	111.7		111.7		111.7
DIA/NSA PROGRAMS					
Other equipment.....	85.9		85.9		85.9
DIA/NSA R.D.T. & E., total.....	85.9		85.9		85.9
DSA PROGRAM					
Programwide management and support.....	11.5	—1.0	10.5		10.5
DSA R.D.T. & E., total.....	11.5	—1.0	10.5		10.5
SADA PROGRAM					
Military sciences: Studies and analyses.....	9.0		9.0	— .6	8.4
SADA R.D.T. & E., total.....	9.0		9.0	— .6	8.4
Total Defense Agencies R.D.T. & E. program.....	470.7	1 —10.0	460.7	1 —10.7	450.0
Request for authorization of prior year funds.....	5.0	—5.0			
Prior year financing available.....				—5.0	—5.0
Total Defense Agencies R.D.T. & E. authorization.....	475.7	1 —15.0	460.7	1 —15.7	445.0
Emergency fund, defense.....	50.0		50.0		50.0
Department of Defense R.D.T. & E. total authorization.....	7,401.6	1 —136.0	7,265.6	1 —249.1	7,016.5

<sup>1</sup> The House did not identify the specific programs to which these reductions will be applied. However, the adjustments recommended by the Senate Armed Services Committee, with the exception of \$2,400,000 for DCA, are identified to individual programs, and include the application of the total reductions made by the House. Therefore the total reductions made by the House and recommended by the Senate Armed Services Committee should be combined to arrive at the total reduction from the amount requested.

COMMITTEE ACTION ON SELECTED SUBJECTS IN RESEARCH,  
DEVELOPMENT, TEST, AND EVALUATION AUTHORIZATION

*Research and Development Programs With Excess Funds*

The Committee recommends reductions totalling \$50.2 million in the programs listed below because these amounts are not needed to finance the work planned in fiscal year 1971. Witnesses have testified that these programs all have been delayed so that fiscal year 1970 funds, provided for these programs, will not be needed during that year, and will be carried over and available to pay for work to be performed during fiscal year 1971. This permits funds to be deleted from the fiscal year 1971 request without affecting requirements for such programs. A number of other major programs, which fall into this same category, are discussed elsewhere in this report.

[In millions of dollars]

	Requested	Change	Recommended
Army:			
Strategic army communications.....	\$7.6	-\$2.2	\$5.4
Tracked and special vehicles.....	9.8	-7.5	2.3
Navy:			
Air launched/sea launched antiship missile.....	21.0	-14.0	7.0
NATO SEA SPARROW.....	13.0	-2.5	10.5
Target acquisition system.....	11.0	-11.0	0.0
Advanced surface ship sonar.....	11.0	-8.0	3.0
Air Force: Truck interdiction.....	10.0	-5.0	5.0

*Behavioral and Social Sciences*

The Behavioral and Social Sciences program has been a subject of Congressional criticism in the past and was specifically reduced by the Congress in fiscal year 1970 primarily because certain elements were considered to be appropriate to the State Department rather than the Department of Defense. These are foreign area research efforts involving the categories of "Foreign Military Security Environments" and "Policy Planning Studies."

The Committee has screened the fiscal year 1971 proposed program in the behavioral and social sciences in critical detail. The Committee is pleased that the Department of Defense recognizes the importance of its personnel force and chooses to focus research attention on those programs which can contribute to the welfare, safety, efficiency and combat effectiveness of our military personnel.

While the Committee believes the department has submitted an austere program, it is evident from a careful review of the proposed fiscal year 1971 projects that they represent a substantial range in terms of their near-term utility and other efficiencies to be derived. However, it is the view of the Committee that certain portions of the program can be carried on at reduced levels of support or deferred entirely to future years.

The details of this program are presented below and indicate the amounts involved in the fiscal year 1969 and fiscal year 1970 programs, the request for fiscal year 1971, and the Committee recommendations (in millions of dollars) :

	Fiscal year 1969	Fiscal year 1970			Fiscal year 1971		
		Budget request	Approved by Congress	Current program	Re- quested	Change	Recom- mended
Human performance.....	\$6.9	\$6.3	\$6.3	\$4.5	\$4.9	—\$0.5	\$4.4
Manpower selection and training.....	21.5	25.3	25.3	21.4	27.2	—2.1	25.1
Human factors engineering.....	3.3	3.7	3.7	2.6	3.2	-----	3.2
Foreign military security environments.....	7.2	6.9	4.8	4.7	5.7	—1.8	3.9
Policy planning studies.....	6.4	6.4	4.0	4.3	4.2	—1.3	2.9
Total.....	45.3	48.6	44.1	37.5	45.2	—5.7	39.5

*Human Performance.*—In the area of human performance research a reduction of \$500,000 or 10 percent is recommended from the requested level of \$4.9 million. The Committee believes this reduction would have minimum adverse impact if it is accomplished by reductions of \$200,000 in ARPA defense research sciences programs and through reductions in the amount of \$300,000 in the proposed Army military personnel performance program in exploratory development.

*Manpower Selection and Training.*—In the manpower selection and training area the reduction of \$2.1 million recommended by this Committee leaves a net increase of \$3.7 million over the fiscal year 1970 program. An increase of this amount is considered justified by the dollar savings and safety advantages to be derived from new programs to develop advanced flight simulators for pilot training purposes. Additional research emphasis in this area is also needed to rationally plan for, or to adopt, Department of Defense manpower plans, incentives, assignments, and personnel policies to the exigencies of reduced manpower levels or to the all-volunteer force concept. The Committee recommends that the \$2.1 million reduction from the requested amount be apportioned as follows:

Studies and analyses: Defense Agencies—\$200,000; Army—\$500,000; Navy—\$700,000; Air Force—\$700,000. The impact of these cuts will be minimal or negligible if the various Department of Defense agencies would fully coordinate and combine those resources devoted to apparently common problems such as leadership training, fundamental advances in computer-assisted instruction, and basic advances in job-performance aids.

*Human Factors Engineering.*—In the human factors engineering area, the Committee concurs with the \$3.2 million request. When considered against the annual total cost of military hardware research and development, this is a small sum to pay to gain the essential assurance that the equipment our men are to use in battle is designed for safe, efficient, and effective use—and to further insure that the system design imposes a minimum of maintenance complexities which can serve to enormously compound defense costs and reduce equipment utility in the field.

*Foreign Military Security Environments and Policy Planning Studies.*—In the areas of foreign military security environments and policy planning studies, the Committee recommended last year that the requested fund levels be reduced by 12% and also that \$3 to \$4 million be transferred to other agencies for subsequent support of such efforts. Although subsequent reductions by the Senate reduced the funds avail-

able for transfer, such transfer until recently had not been accomplished. However, Defense has now advised that an agreement was just reached with the State Department for a cooperative effort involving the use of some \$0.5 million of fiscal year 1970 funds. The Committee is encouraged by this action and urges the Departments of State and Defense with assistance by the Bureau of the Budget to continue these cooperative efforts consistent with Defense requirements.

In fiscal year 1971, \$5.7 million is requested for research and development on Foreign Military Security Environments and \$4.2 million for Policy Planning Studies. Although the Committee recognizes that Defense has sharply curtailed its efforts (by 39% from 1968 to the fiscal year 1971 request), further reductions are warranted in the work on Foreign Military Security Environments relevant to counter-insurgency operations. The Committee recommends a reduction of \$1.8 million to be taken from the exploratory development programs in ARPA (Overseas Defense Research) \$500,000, and the Army, \$1.3 million. The Policy Planning Studies work seems to be most relevant to the responsibilities of the Office of the Secretary of Defense, in particular International Security Affairs, and less germane to the missions of the Military Departments. Accordingly, the Committee recommends that the request of \$4.2 million be reduced by \$1.3 million with the reduction to be distributed across the Army (\$400,000), Navy (\$200,000), and Air Force (\$300,000). In addition, the Studies and Analyses, Defense Agencies program also should be reduced by \$400,000. The Committee recommendations provide for a reduction of \$3.1 million, or more than 30% from the Defense request for funds for work having foreign area or foreign affairs content. They also represent a reduction of 21% from the fiscal year 1970 program.

\* \* \* \* \*

#### *Defense Research Sciences*

Section 203 of the fiscal year 1970 Military Procurement Authorization Act limited the use of funds authorized for research to effort which "has a direct and apparent relationship to a specific function or operation." Discussion of the continuation of this limitation as a section in the fiscal year 1971 act is being treated separately in this report.

The fiscal year 1971 request for Defense Research Sciences totals \$297.0 million which compares with \$293.8 million in fiscal year 1970. This increase is not consistent with the concern expressed last year by the Congress that the high level of research sponsored by the Department of Defense should be reduced with compensating increases in research sponsored by other federal agencies. The Bureau of the Budget, partially in recognition of the sense of Section 203, added \$10 million to the fiscal year 1971 budget for the National Science Foundation.

The Committee wishes to emphasize its continued concern that research should be supported to a greater degree by other federal government agencies and, recognizing the action of the Bureau of the Budget in increasing the National Science Foundation budget, recommends a reduction of the Army and Navy programs to the same amounts approved for fiscal year 1970. The Air Force fiscal year 1971 request which is below their fiscal year 1970 program is recommended for approval. The Defense Agencies request is recommended to be

reduced by \$6.0 million because of their transfer of a major segment of a single project, which was carried under Defense Research Sciences in fiscal year 1970, to the Exploratory Development Program in fiscal year 1971. This permitted the addition of research projects in fiscal year 1971 to make up the reduction, but in fact constitutes an increase of \$6 million over the fiscal year 1970 program.

The effect of these recommendations, which is detailed below, is to reduce the \$297 million requested for fiscal year 1971 by \$12.1 million to \$284.9 million. This is a four percent reduction from the amount requested and \$8.9 million less than in fiscal year 1970.

[In millions of dollars]

	Fiscal year 1970	Fiscal year 1971	Change	Committee recommen- dation
Army.....	\$65.6	\$69.4	-\$3.8	\$65.6
Navy.....	104.3	106.6	-2.3	104.3
Air Force.....	80.7	78.3	-----	78.3
Defense Agencies: ARPA.....	43.2	42.7	-6.0	36.7
Total.....	293.8	297.0	-12.1	284.9

### S-3A

The Committee recommends approval of the \$309.7 million requested for the S-3A carrier-based, anti-submarine warfare aircraft which will replace the aging S-2E force. The Navy had requested \$208 million under the R.D.T. & E. appropriation and \$101.7 million under the Procurement of Aircraft and Missiles, Navy appropriation (consisting of \$79 million for procurement of two test aircraft and \$22.7 million for advance procurement).

Within these total dollars, the Committee recommends the transfer of \$79 million from procurement to R.D.T. & E. because the two aircraft which these funds will buy are required initially for development and test although, ultimately, they are planned for fleet use. This recommendation is consistent with the long-standing policy of the Department of Defense, with the approval of the Congress, and was the same reason why the Congress in fiscal year 1970 transferred the F-14 test aircraft and funds between these appropriations. Moreover, this action is an expression of concern by the Committee that concurrency of research and development and procurement is to be avoided, and that a more orderly progression is to be achieved to insure that technical problems have been minimized by the time production is started.

### Subsonic Cruise Armed Decoy (SCAD)

The Committee recommends denial of the \$33.6 million which is requested for contract definition and initiation of development on the propulsion, navigation and decoy electronics subsystems of the Subsonic Cruise Armed Decoy (SCAD).

The Committee supports the need for this system which is designed to improve the penetration capability of the B-52 strategic bomber force, and also would be used with the B-1 advanced bomber. However, the Department of Defense has delayed its decision on this program and there is no indication as to when such decision will be made.

Additionally, there are some \$9 million for this program in fiscal year 1970 which have not been used. If the program is approved these funds should be sufficient to support requirements during fiscal year 1971.

*(Light Intratheater Transport) LIT*

The Air Force request for the LIT aircraft is \$2 million for research and development.

This aircraft is proposed as a follow-on to replace the C-7 and the C-123 and to augment the C-130 tactical airlift aircraft. The testimony indicates that the total estimated cost for research and development will approximate \$500 million alone.

Since the C-130 is ably performing the mission requirement the Committee does not believe it essential at this time to embark on a costly program that may exceed \$1 billion if the aircraft is produced. The \$2 million request is therefore recommended to be deleted.

*SAM-D*

The Committee recommends a reduction of \$15 million in the \$89.3 million requested for the SAM-D surface-to-air missile program. The effect of such a reduction would be to postpone all engineering development work on SAM-D until fiscal year 1972.

The Committee also calls upon the Defense Department, during fiscal year 1971, to conduct an extensive review of the system's specifications, with particular emphasis on its horizontal and vertical ranges. Consideration should be given, during this review, to the performance capabilities of the Air Force F-15 aircraft which is planned to be employed in conjunction with SAM-D to assure air superiority to our Army in the field. The objective of this review should be the elimination of all inessential SAM-D capabilities which should result in reduced procurement costs if and when the system is authorized for procurement.

*Items Relating to Continental United States Bomber Defense*

*Airborne Warning and Control System (AWACS).* This is a research and development program to provide a survivable airborne command, control and communications system for use both by air defense and tactical air forces. The fiscal year 1971 request is for \$87 million in R&D funds and no production decision is required at this time.

The distinguishing technical features of AWACS will be the capability of its radar to detect and track aircraft at long ranges at high and low altitudes and over land and water. The system, as planned, will be capable of providing command and control for the interceptor force, as well as sustaining air operations such as counter-air, interdiction, close air support, and rescue.

The AWACS radar, if developed, will be a dramatic breakthrough in radar technology. The Committee believes that this promising new technology should be pursued and supports the fiscal year 1971 request for \$87 million, recognizing that it will be several years before a production decision is required.



*Conus Air Defense Interceptor.* This program has been reduced to a very low level pending reexamination and selection of the interceptor aircraft from several candidates. This aircraft, as presently envisioned, is planned to have a "look-down radar/shoot-down missile system." The fiscal year 1971 request for R&D funds is \$2.5 million. The Committee feels that the Air Force does not need these funds in fiscal year 1971 and recommends that this item be deleted. The \$2.5 million authorized and appropriated for this program in fiscal year 1970 has not been used.

*Advanced Fire Control/Missile System Technology.* This item, for which \$2.8 million in R&D funds has been requested, is associated with the proposed advanced interceptor. In view of this, the Committee does not feel that the Air Force needs these funds in fiscal year 1971 and, consequently, recommends the deletion of this item.

*Conus Over-The-Horizon (OTH) Radar.* The fiscal year 1971 R&D request for this item is \$5.3 million. The OTH radar program is in the concept formulation stage at this time. The advanced radar technology represented by the OTH radar is very promising and the Committee feels that it should go forward. Therefore, the Committee recommends that the \$5.3 million for this item be approved.

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#### *Short Range Missile (SRM)*

The Short Range Missile is a new air-to-air missile system to be designed for high performance maneuvering fighter aircraft. It is to be used on the Air Force F-15 and the Navy F-14 aircraft.

Both the Navy and the Air Force have been working on missile systems to meet this requirement. The Committee agrees with the Department of Defense's position that a *common* Short Range Missile system should be developed, whereby the same missile can be used by both the F-14 and the F-15 aircraft. The Deputy Secretary of Defense was scheduled to make a decision around July 1, 1970 as to whether the Air Force or Navy Short Range Missile program should be pursued; however, it now appears that this decision will be delayed until late summer. The Committee supports the principle of only one common Short Range Missile. Consequently, the Committee recommends that the \$2 million requested by the Navy for advanced development of this missile be authorized, and the Air Force request for \$37.2 million be reduced by \$29.2 million to \$8 million. Significant funds for the Air Force Short Range Missile program from fiscal year 1970 have been deferred by the Office of the Secretary of Defense. The Committee feels it is premature to authorize \$37.2 million for fiscal year 1971 when the Deputy Secretary of Defense will not have reached a decision on which missile program should be approved for development.

#### *MINUTEMAN Rebasing*

The Committee recommends a reduction of \$27 million in the \$77 million requested for the MINUTEMAN Rebasing program.

This is a new program for fiscal year 1971, but it includes a continuation of work on the Hard Rock Silo Development and MINUTEMAN Integrated Command and Control (MICCS) projects, both of which were individual programs in fiscal year 1970. The planned use of the funds requested by the Air Force is as follows:

Hardened Silos.....	\$31,600,000
Hard Point Defense.....	10,000,000
Mobile MINUTEMAN.....	20,400,000
C&C/Command Data Buffer Integration.....	15,000,000
Total .....	\$77,000,000

These programs represent an aggregate of options, together with efforts planned under SAFEGUARD, Advanced Ballistic Missile Defense, and related Navy programs, for improving the survivability of our land-based ICBM deterrent. Many of them have the potential of becoming multibillion-dollar programs. While the Committee recognizes the need to evaluate a series of options for protecting our MINUTEMAN force, it questions the need to fund all of them concurrently to a significant extent.

Hardened and hard-rock silos in particular do not appear to be promising options, since even if technically feasible, such silos would become increasingly vulnerable to improvements in the accuracy of attacking missiles. Accordingly, the Committee directs the Air Force to terminate its research in the hardened silos area in as orderly a fashion as possible, and to concentrate its remaining funds on the other projects in the MINUTEMAN Rebasing program.

#### *Advanced Ballistic Reentry System (ABRES)*

The Committee recommends a reduction of \$5 million from the \$105 million requested for the ABRES program. This program provides for advanced development of reentry systems and penetration aids to provide improvements in the capabilities of land based and sea based ballistic missiles which are designed to penetrate enemy defenses. This reduction relates to effort in support of any future hard-target kill capability. Those efforts which are pointed toward a strictly retaliatory objective which can be met with substantially less accuracy and more modest yields than needed for the counterforce mission are to be fully supported.

#### *Advanced Ballistic Missile Defense*

The Committee recommends a reduction of \$20 million in the \$158 million requested for fiscal year 1971 for the Advanced Ballistic Missile Defense program. Even with this reduction the Army would be left with \$138 million, an amount 25% in excess of the \$110 million level at which this program was funded in fiscal year 1970.

Since this is an advanced development program consisting of numerous and varied projects, the Committee believes that the priorities of these projects can be structured in such a manner as to permit the more moderate increase in funding it recommends. The Committee fully supports those projects devoted to Hardsite development and directs that its cut be concentrated in less essential areas.

*Surface Effect Ships*

The Committee recommends a reduction of \$10 million from the \$20 million requested. This is a joint Navy-Commerce Department advanced development program to determine the feasibility of building and operating large, high speed, multithousand ton surface effect ships of 80 knots or higher speed. This involves new technology which employs hydrofoils or a cushion of air beneath the hull to raise the hull clear of the water and permit top speeds of 50 to 100 knots. This compares, for example, with present destroyer top speeds of about 32 knots. Such ships promise a greater advancement in surface ship capability than any in the last century and have a potential for revolutionizing naval warfare and providing a major improvement in commercial shipping.

While convinced of the importance of this program, the Committee is concerned that the Department of Defense is supporting a disproportionate share of the cost. This program was started on June 20, 1966, when the initial joint agreement was signed. It resulted in equal amounts of funds being provided by both the Navy and the Commerce Department in fiscal year 1968 and fiscal year 1969. However, in fiscal year 1970, and as proposed for fiscal year 1971, the Navy budget bears almost the entire cost.

The Navy has testified that this change in funding policy was directed by the Bureau of the Budget, despite the recommendations made both by the Navy and Commerce. The reduction recommended by the Committee may be compensated by action of the Commerce Department to reprogram a like amount from programs of lower priority. As an alternative, the Navy may pursue development of only one of the two 100 ton ships in fiscal year 1971.

The Bureau of the Budget should recognize that the trend towards Department of Defense support of non-defense programs is not viewed with favor. The attitude of the Congress in this regard was made clear last year by the provisions of Section 203 of the fiscal year 1970 Military Procurement Authorization Act, which restricted the use of Defense research funds to military functions or operations. This same language is being recommended for reenactment for fiscal year 1971, as Section 204 of this bill.

The budget for fiscal year 1972 should be examined carefully by the Bureau of the Budget to insure that such instances are not repeated, and that the programs and funds proposed for the various departments and agencies of the government are consistent with their respective responsibilities.

*DRAGON*

The DRAGON is a medium anti-tank assault weapon being developed by the Army. Advance development was initiated in April 1965. Engineering development was started in February 1966 and the program is still in this phase. The DRAGON is a light-weight, man-portable, anti-tank assault weapon. It complements rather than duplicates the TOW anti-tank weapon. The Committee is concerned with what appears to be a long period of research and development.

The Committee supports the \$9.6 million requested in funds for fiscal year 1971. The Committee intends to monitor the progress on this program closely in the future in view of the delays encountered to date.

*Project MALLARD*

Project MALLARD is a joint international program involving the United States, United Kingdom, Canada, and Australia, which is designed to modernize tactical communications systems for use by the field armies of participating countries. Germany and other NATO countries presently are not included in this program but should be.

The two essential MALLARD program objectives are stated as (a) tri-service commonality of tactical communications equipments as a means of achieving economy and effective joint operations between the armed forces of the United States, and (b) the establishment of international standards, particularly with NATO to provide communications with our allies.

The Committee recognizes the importance of this program but disagrees with the manner in which it is being pursued. Cognizance was taken of the actions of the Congress last year which reduced the amount requested for fiscal year 1970 from \$21 million to \$16 million, the amount estimated by the Department of Defense to be needed to accomplish the orderly termination of the program. The Committee has examined this program and concurs with the expressed concern of the House Committee on Appropriations last year that the Department of Defense would embark on an international development program of this nature and magnitude when a military-wide tactical communications system has never been developed for the military services of the U.S., that the DOD inventory is replete with communications equipment having a lack of commonality, and that historically, joint international development programs are inherently turbulent and trouble-ridden.

The Deputy Secretary of Defense recently stated that "MALLARD is an ambitious program: it is attempting to engineer a family of communication equipments that could be used by all Services for their unique tactical multichannel communications needs as well as joint and combined needs." It is apparent that a program involving international cooperation and participation would be substantially more complicated and difficult.

There presently are \$10.8 million of fiscal year 1970 funds which have not been obligated and therefore are still available to support this program. The Committee recommends deleting the \$14 million requested for the Army and the \$1.7 million requested for the Air Force for fiscal year 1971, and that (1) the program should be reoriented to give first priority to joint service requirements and interrelationships without the complication of active international participation; and if this requires any funds during fiscal year 1971, the unobligated \$10.7 million is available for this purpose, and (2) the need to interface with NATO forces (instead of only U.K., Canada, and Australia) should be recognized and provided for, if practicable, by active coordination of efforts, but not by joint developmental efforts which experience has shown to be more a hindrance than constructive. In this way, the program would provide for evolutionary improvements to U.S. communications systems with necessary coor-

dination with NATO requirements and efforts and, ultimately, an integrated international system.

#### *Hard Structure Munitions (HSM)*

The Hard Structure Munitions (HSM) is an Air Force air-to-ground rocket-powered TV-guided missile designed for high effectiveness against large, hard structured targets. The Air Force request was for \$7 million to continue R&D. The Committee recommends denial of the \$7 million in funds requested for fiscal year 1971 because \$8.9 million previously authorized to initiate engineering development is still available and because the program has been delayed due to technical problems.

The judgment of the Committee is that sufficient funds are available from prior years to pursue this program.

The Committee will continue to follow progress on this program closely.

#### *Chemical and Biological Warfare (CBW)*

The Committee has devoted considerable attention to the fiscal year 1971 chemical and biological warfare program because of its continuing interest in this area. As a result of its review, the Committee recommends a reduction of \$3.8 million in the R&D portion of this budget, together with the enactment of three regulatory provisions.

A comparison of the final fiscal year 1970 and the requested fiscal year 1971 CBW R&D programs, together with an identification of the \$3.8 million reduction (Army only) recommended for fiscal year 1971 by the Committee follows:

#### CBW RESEARCH AND DEVELOPMENT PROGRAM

[In millions of dollars]

	Fiscal year 1970	Fiscal year 1971		
		Requested	Change	Recommended
<b>Chemical program:</b>				
Chemical research.....	\$8.6	\$9.5	—\$0.9	\$8.6
Lethal chemicals.....	4.3	5.2	— .8	4.4
Incapacitating chemicals.....	2.1	2.8		2.8
Defensive equipment.....	16.6	21.2		21.2
Simulant test support.....	1.9	2.0		2.0
<b>Total chemical program.....</b>	<b>33.5</b>	<b>40.7</b>	<b>—1.7</b>	<b>39.0</b>
<b>Biological program:</b>				
Biological research.....	7.6	9.7	—2.1	7.6
Lethal biologicals.....	1.0			
Incapacitating biologicals.....	1.9			
Vegetative control biologicals.....	.6			
Defensive equipment.....	9.2	11.9		11.9
Simulant test support.....	1.6	1.6		1.6
<b>Total biological program.....</b>	<b>21.9</b>	<b>23.2</b>	<b>—2.1</b>	<b>21.1</b>
<b>Other systems:</b>				
Flame and incendiary.....	2.8	3.1		3.1
Smoke.....				
Riot control.....	5.0	4.6		4.6
Herbicides.....	1.2	.5		.5
Support equipment.....	.7	.9		.9
Test support.....	6.5	5.7		5.7
<b>Total other systems.....</b>	<b>16.2</b>	<b>14.8</b>		<b>14.8</b>
<b>Total program.....</b>	<b>71.6</b>	<b>78.7</b>	<b>—3.8</b>	<b>74.9</b>

The fiscal year 1971 request of \$78.7 million is \$7.1 million higher than the fiscal year 1970 level of \$71.6 million. When it is recognized that \$3.5 million is to be saved in fiscal year 1971 through the elimination of all research on lethal, incapacitating, and vegetative control biological agents, the increase in those portions of the budget on which activity is continuing is actually \$10.6 million.

This increase is accounted for primarily by a proposed increase of \$7.3 million in our defensive CBW activities. The Committee supports this increase, which is in keeping with the policy underlying the President's decision of last November 25th. The Committee believes, however, that other continuing CBW activities should be kept in the aggregate at the fiscal year 1970 level, and this will be achieved by the \$3.8 million reduction.

Below is a comparison of the final fiscal year 1970 and the proposed fiscal year 1971 procurement programs for CBW. While the procurement programs for CBW are not subject to authorizing legislation, they are presented as a matter of general interest.

CBW PROCUREMENT PROGRAM  
(In millions of dollars)

	Fiscal year	
	1970	1971
Chemical program:		
Lethal.....	\$2.1	
Incapacitating.....	16.8	\$3.3
Defense.....		
Total, chemical program.....	18.9	3.3
Biological program: Production base program.....	6.0	
Other systems:		
Flame and incendiary.....	65.9	57.6
Smoke.....	48.7	27.2
Riot control.....	28.7	5.4
Herbicides.....	2.0	1.0
Other support equipment.....	1.5	1.2
Total, other systems.....	146.8	92.4
Total, program.....	171.7	95.7

### Regulatory Provisions

*Reenactment of Prohibition on Procurement of CBW Delivery Systems.* The Committee recommends three amendments involving the CBW program for which explanations follow:

Section 506(a). The Committee recommends reenactment of Section 409(f) of last year's bill, with minor modification, as Section 506(a). The modification is required to clarify the intent of last year's language regarding delivery system parts and components. This Section would prohibit the use of funds during fiscal year 1971 for the procurement of delivery systems specifically designed to disseminate lethal chemical agents or for the procurement of delivery system parts or components designed for this purpose. While research and development work on new binary chemical munitions will not be prohibited under Section 506(a), its reenactment will ensure that no binary or other chemical munitions of a lethal nature are procured without the expressed consent of the Congress.

*Safety Provision for Disposal of Lethal Chemical and Biological Agents.* Section 506(b). The Committee recommends the enactment, as Section 506(b), of amendment to the permanent restrictions on CBW activities contained in last year's bill. Section 506(b) would ensure that the disposal of biological stockpiles which will be required as a result of the President's decision of last November 25th, as well as the disposal of any lethal chemical stockpiles determined to be necessary in the future, would not be undertaken until the Surgeon General of the Public Health Service had reviewed the proposed plans for their disposal and determined what precautionary measures, if any, were required to protect the public health and safety. Section 506(b) would ensure also that foreign governments were notified prior to the disposal of any biological or lethal chemical agents within their countries. Section 506(b) is necessary, the Committee feels, because the disposal of stockpiles was not addressed in the permanent restrictions in last year's bill.

*National Academy of Sciences' Study on Herbicides.* Section 506(c). The Committee recommends the enactment of Section 506(c), which calls for a study, to be conducted by the National Academy of Sciences, into the ecological and physiological consequences inherent generally in the use of herbicides and also into the specific ecological and physiological effects which have followed from our use of herbicides as defoliants in Vietnam. Section 506(c) authorizes the use of funds authorized for the fiscal year 1971 CBW program, for use in the financing of this study. The Committee believes that such a study is essential in light of the disturbing evidence which has been uncovered in recent years on the possible effects of herbicides. It commends the recent decision of the Defense Department to suspend further use in Southeast Asia of herbicides containing 2,4,5-T.

The Committee has reviewed the President's decision of last November 25th renouncing the use of biological weapons, as well as his later decision that the same ban would apply to toxins of all kinds. The Committee endorses these decisions which it believes are consistent with our security needs.

Plans for the implementing of these decisions are currently in the process of formulation within the Executive Branch. The Defense Department has assured the Committee that they will ultimately be implemented in such a manner as to afford our potential adversaries convincing proof that the United States has in fact abandoned its biological warfare capability.

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#### *Federal Contract Research Centers Reduction*

There are currently 13 not-for-profit organizations that constitute the group of Federal Contract Research Centers (FCRC's) which assist in the planning, development and execution of Department of Defense programs. These fall into 4 groups as follows:

##### *University Centers:*

Ordnance Research Laboratory—Penn. State University  
Applied Physics Laboratory—Univ. of Washington

Human Resources Research Organization—(formerly George Washington Univ.) (HUMMRO)  
Systems Engineering and Technical Direction:  
Mitre Corporation  
Aerospace Corporation  
Specialized Research Organizations:  
Lincoln Laboratory  
Applied Physics Laboratory—Johns Hopkins University (APL/JHU)  
Operations Research and Systems Analysis:  
Institute for Defense Analyses (IDA)  
Rand Corporation  
Research Analysis Corporation (RAC)  
Analytic Services (ANSER)  
Center for Naval Analysis  
Electromagnetic Compatibility Analysis Center (ECAC)

The Congress has been critical of these Centers because of their size, their cost, and their unique protected position relative to competitive private industry.

Congressional interest has been expressed by specific reductions in the amounts requested for these activities, and by the establishment of annual ceilings on the total amount authorized for their support. These ceilings have been granted at the departmental level to provide the Secretary of Defense the flexibility needed to make adjustments among the various agencies of that department as required by changing situations and program priorities. For fiscal year 1970, the Congress approved a total ceiling of \$249.5 million. It is important to understand that the ceiling applies to all funds appropriated to the Department of Defense, and not only those appropriations which are subject to authorization. Determinations regarding the ceiling therefore are a matter for consideration by the Appropriations Committees.

The request for fiscal year 1971 is \$257.6 million which is \$7.8 more than the fiscal year 1970 program. However, the increase is really greater because one FCRC, the Center for Research in Social Sciences (CRESS), which was supported for \$1.487 million in fiscal year 1970, has been abolished and is not included in fiscal year 1971. On a comparable basis, therefore, the requested increase is approximately \$9.3 million.

The fiscal year 1971 request also includes \$4.4 million for the Air Force which is not identified to specific programs in the budget, but represents "ceiling" that would be available during fiscal year 1971 to "cover urgent unforeseen requirements and to selectively apply appropriate ceiling adjustments to accommodate necessary cost of living increases." It is not understood why the Air Force needs such a contingency ceiling amount while the Army, Navy, and Defense Agencies do not.

It is significant that only the Air Force, with more than 50% of the total ceiling requirement, and even including the \$4.4 million contingency, proposes a lower ceiling in fiscal year 1971 than in fiscal year 1970, whereas the Army, Navy, and Defense Agencies all propose increases. The Air Force has stated that this reduction is consistent with the general reduction in the majority of separately funded Air



Force R.D.T. & E. programs in fiscal year 1970, coupled with a lowering of the fiscal year 1971 dollar requirements of many of these programs, below the fiscal year 1970 levels. Since the total reductions recommended by the Committee in fiscal year 1971 will establish the program substantially below the levels for fiscal year 1969 and fiscal year 1970, the logic expressed in the Air Force statement would support a reduction in total FCRC support. For these and other reasons discussed elsewhere the Committee recommends a reduction of \$3.3 million as detailed in the table below. Further reductions, which would affect ceiling only, should be considered by the Appropriation Committees in establishing a total FCRC ceiling for fiscal year 1971.

#### FEDERAL CONTRACT RESEARCH CENTERS DISTRIBUTION OF REDUCTION

[In millions of dollars]

	Reductions
<b>Army:</b>	
Defense Research Sciences (HUMMRO)-----	\$0.2
Military Training Leadership (HUMMRO)-----	.5
Studies and Analysis (RAC)-----	1.0
<b>Total</b> -----	<b>1.7</b>
<b>Navy:</b>	
A/L S/L antiship Missile (Harpoon) (APL/JHU)-----	.5
Studies and analysis, Navy (CNA)-----	.2
Center for Naval Analyses-----	.2
<b>Total</b> -----	<b>.9</b>
<b>Air Force:</b>	
Project MALLARD (Mitre)-----	.1
<b>Total</b> -----	<b>.1</b>
<b>Defense agencies:</b>	
Advanced Engineering, ARPA (APL/JHU)-----	.5
Defense Research Sciences, ARPA (Rand)-----	.1
<b>Total</b> -----	<b>.6</b>
<b>Grand total</b> -----	<b>3.3</b>

#### *Federal Contract Research Centers Salary Limitation*

Section 407 of the fiscal year 1970 Military Procurement Authorization Act provided permanent language establishing a limitation of \$45,000 on annual compensation to be paid from Defense funds to officers or employees of Federal Contract Research Centers except with the approval of the Secretary of Defense under regulations prescribed by the President. It also required that the Congress be advised of any such exceptions.

The Secretary of Defense has complied with this section and has advised this Committee that the number of individuals who received over \$45,000 had been reduced from 20 during the preceding year to 12, of whom only two are being paid over \$45,000 from federal funds (they receive \$60,000 each); that the maximum salary has been re-

duced to \$70,000; and that because of these actions, the intent of Section 407 has been accomplished.

The Committee is satisfied with the actions taken by the Secretary of Defense and recommends no change in the language of Section 407.

SUMMARY OF RESEARCH AND DEVELOPMENT AUTHORIZATION  
BY BUDGET ACTIVITY

*Military Sciences*

[In millions of dollars]

	Requested	H.R. 17123	Committee report	
			Change	Recommended
Army.....	176.2	176.2	-9.6	166.6
Navy.....	142.2	142.2	-3.0	139.2
Air Force.....	134.6	134.6	-.5	134.1
Defense agencies.....	131.5	131.5	-16.8	114.7
Total.....	584.5	584.5	-29.9	554.6

This budget activity consists largely of research and exploratory development. Within the research program each military department has budgeted amounts for in-house laboratory independent research and for Defense research sciences. The in-house independent laboratory research programs permit the chiefs of laboratories operated by the military departments and the Defense Agencies to use funds on projects suggested by persons in these laboratories.

The program element entitled "Defense Research Sciences" consists of basic research in the fields of physics, chemistry, mathematical sciences, electronics, materials, biology, and astronomy. The work in this program element is conducted by laboratories of the military departments, by colleges and universities, and by industry.

The Committee recommends a reduction of \$29.9 million in this budget activity, which consists of \$12.1 million for Defense Research Sciences, \$4.3 million for programs included under Behavioral and Social Sciences, and \$3 million for Biological and Chemical Warfare programs. All of these are discussed in detail elsewhere in the report. In addition, it includes a reduction of \$.3 million for the Army Studies and Analysis program and \$10.2 million for the ARPA Advanced Engineering program relating to Surface Effects Vehicles. There is doubt regarding the operational need for such a vehicle, and the \$5 million of fiscal year 1970 funds which are unobligated will be used to complete the work planned for fiscal year 1970 but not to initiate new work.

*Aircraft and Related Equipment*

[In millions of dollars]

	Requested	H.R. 17123	Committee report	
			Change	Recommended
Army.....	110.2	110.2	-21.6	88.6
Navy.....	694.0	694.0	+65.8	759.8
Air Force.....	831.3	831.3	-97.8	733.5
Total.....	1,635.5	1,635.5	-53.6	1,581.9

This activity funds research, development, test, and evaluation related to airframes, engines, avionics, and other installed aircraft equipment. Applied research in a wide variety of supporting technologies, including flight dynamics, advanced aircraft propulsion systems, avionics, and biotechnology is included.

The Committee recommends a reduction of \$53.6 million in this activity.

For the Army, the Committee recommends a reduction of \$21.6 million of which \$17.6 million is applied against the Cheyenne helicopter proposed for termination and \$4 million on the Advanced Helicopter Development program. These are discussed in detail elsewhere in this report.

The net increase of \$65.8 million recommended for the Navy includes a transfer of \$79 million from the Procurement Appropriation for two test S-3A anti-submarine warfare aircraft which are properly to be included under research and development as explained elsewhere in this report. This increase is offset partially by a reduction of \$5.2 million for the F-14 air superiority fighter which is discussed earlier in the report, and a reduction of \$8 million from the \$13.5 million requested for the Destroyer Helicopter system. The amount recommended for reduction was requested for initiation of contract definition and engine qualification for this helicopter. This program has been delayed because the Navy has not completed and submitted the technical development plan to the Secretary of Defense for his approval. The remaining \$5.5 million may be used for development of avionics equipment and continuation of investigations at sea.

The Committee recommends a reduction of \$97.8 million in the Air Force program. This includes the B-1 Advanced bomber, \$50 million; Subsonic Cruise Armed Decoy (SCAD), \$33.6 million; the F-111 aircraft, \$6.4 million; Light Intratheater Transport, \$2 million; CONUS Air Defense Interceptor, \$2.5 million; Advanced Fire Control/Missile Technology, \$2.8 million; and the Advanced Tanker, \$5 million. Each of these is discussed at length elsewhere in this report.

The Army programs supported under this activity also include development of aircraft weapons, avionics and propulsion subsystems. The Navy program includes \$47.7 million for continued development of the E-2C Early Warning Aircraft and \$10 million for the Crane Helicopter Lift. Programs being continued by the Air Force include the AX Close Air Support Aircraft for \$27.9 million, the F-15A Advanced Fighter for \$370 million and the C-5A for \$11.6 million.

#### *Missiles and Related Equipment*

[In millions of dollars]

	Requested	HR. 17123	Committee report	
			Change	Recommended
Army.....	896.4	896.4	-35.0	861.4
Navy.....	494.3	494.3	-27.5	466.8
Air Force.....	762.8	762.8	-61.2	701.6
Defense agencies.....	66.0	66.0	-----	66.0
Total.....	2,219.5	2,219.5	-123.7	2,095.8

This activity provides for research, development, test, and evaluation of missile systems of all types. In addition to funding contracts with industry, this activity supports the operation of certain test and evaluation facilities of the Department of Defense such as the Eastern and Western Test Ranges, the White Sands Missile Range, the Naval Weapons Center at China Lake, and the Research and Development programs at the Army's Redstone Arsenal.

The Committee recommends a reduction of \$123.7 million in this activity. The Army portion is \$35 million and includes a \$15 million reduction for SAM-D Surface-to-Air missile and \$20 million in the Advanced Ballistic Missile Defense program, both of which are discussed elsewhere in the report. The continued development of the SAFEGUARD ABM system is included for \$365 million.

The reduction of \$27.5 million for the Navy, recommended by the Committee covers two items, \$14 million for the Air Launched/Surface Launched Antiship missile (HARPOON), and \$13.5 million for the Point Defense System development. These items are discussed elsewhere in this report. The Navy request includes \$122.7 million for continued development of the Fleet Ballistic Missile System (POSEIDON), \$75 million for the Advanced Surface Missile System (AEGIS) development which is needed for fleet defense against aircraft and antiship missile attack, and \$44 million for the advanced development program Undersea Long Range Missile System (ULMS).

A reduction of \$61.2 million is recommended in the Air Force request, comprised of \$5 million for the Advanced Ballistic Reentry System (ABRES), \$29.2 million for the Short Range Air-to-Air missile for the F-15 aircraft, and \$27 million in the MINUTEMAN Rebasing program. These are discussed elsewhere in this report. The program of \$701.6 recommended by the Committee will provide \$224.2 million for continued development of the MINUTEMAN III ballistic missile system, and \$46 million for continuation of the Short Range Attack Missile (SRAM) to be used with the B-52 strategic force and later the B-1 Advanced Bomber.

#### *Military Astronautics and Related Equipment*

(In millions of dollars)

	Requested	H.R. 17123	Committee report	
			Change	Recommended
Army.....	10.7	10.7	-2.2	8.5
Navy.....	29.1	29.1		29.1
Air Force.....	437.7	437.7		437.7
Defense agencies.....	3.0	3.0		3.0
Total.....	480.5	480.5	-2.2	478.3

This activity provides for programs directed toward the improvement of space technology for military purposes and investigations and development of specific military applications of space vehicles. Major programs include military communications satellite systems and ballistic missile early warning systems. Support is also included

for flight experiment programs, and ground base applied research and technology development programs in such areas as secondary power sources and navigation, guidance, sensor, reentry, and propulsion systems. Both contractual and in-house efforts relating to space technology are funded from this activity.

The Committee recommends a reduction of \$2.2 million which relates to the Strategic Army Communications program (STARCOM), and is discussed elsewhere in this report.

The relatively small amount of Army and Navy funds under this budget activity is for ground and shipboard elements of the worldwide Defense Satellite Communications System and for tactical applications of satellite communications.

The Air Force request, which is the lowest amount for this activity in nine years, following the cancellation of the Manned Orbiting Laboratory (MOL) last year, will provide for advanced development of a wide range of space technology programs. It also provides for development of improvements to the Titan III space booster and support of the Satellite Control Facility at Sunnyvale, California.

The amount budgeted for defense agencies is for work by the Defense Communications Agency on the defense communications satellite.

*Ships, Small Craft, and Related Equipment*

(In millions of dollars)

	Requested	H.R. 17123	Committee report	
			Change	Recommended
Army.....	1.1	1.1		1.1
Navy.....	377.5	377.5	-20.0	357.5
Total.....	378.6	378.6	-20.0	358.6

This activity provides for design of new types of ships and for development of mine warfare weapons, shipboard equipment including command and control systems, and nuclear and nonnuclear propulsion plants. Antisubmarine warfare continues to be emphasized with development of ships and submarine sensors and countermeasures systems. A significant portion of the effort at the Naval Ships Research and Development Center is funded under this activity.

The Committee recommends a reduction of \$20 million in this activity which applies to the Navy Advanced Surface Ship Sonar Development program, \$8 million, and the Surface Effect Ship program, \$10 million, both of which are discussed elsewhere in this report. The remaining \$2 million reduction involves the Antisubmarine Warfare Acoustic Warfare program for which \$8.5 million was requested. This is a new engineering development program and the \$6.5 million remaining should be adequate for this purpose. The Navy program will support a wide range of advanced and engineering development programs relating to ship and small craft development.

The Army program provides for design of marine craft and amphibious lighters needed to support Army operations.

*Ordnance, Combat Vehicles, and Related Equipment*

[In millions of dollars]

	Requested	H.R. 17123	Committee report	
			Change	Recommendation
Army.....	153.2	153.2	-8.3	144.9
Navy.....	89.0	89.0	-----	89.0
Air Force.....	78.3	78.3	-12.0	66.3
Total.....	320.5	320.5	-20.3	300.2

This activity provides for the development, test, and evaluation of improved artillery, guns, rocket launchers, mortars, small arms, mines, grenades, torpedoes, nuclear and chemical munitions, and conventional air launched weapons, as well as exploration and evaluation of new fuses, propellants, explosives, detonators, dispensers, and armor. This activity also provides principal support for research and development activities at several Army arsenals and the Naval Ordnance Laboratory at White Oak, Maryland.

The Committee recommends a reduction of \$20.3 million in this activity, the details of which are discussed elsewhere in this report. This includes \$8.3 million for the Army involving \$7.5 million for Tracked and Special Vehicles development, \$.5 million for Lethal Chemical Investigations and \$.3 million for Lethal Chemical Munitions Concepts. The Air Force is reduced by \$12 million, of which \$7 million relates to Armament/Ordnance Development and \$5 million to Truck Interdiction.

The major items included for the Army are the main battle tank for \$36 million and a wide range of munitions and ordnance. For the Navy, major items included are \$17 million for Undersea Warfare Weaponry and \$36.3 million for continued development of the MK-48 torpedo. The Air Force request provides \$20.9 million for continued development of an Improved Aircraft Gun System, and for work in conventional munitions and weapons.

*Other Equipment*

[In millions of dollars]

	Requested	H.R. 17123	Committee report	
			Change	Recommendation
Army.....	317.8	317.8	-14.0	303.8
Navy.....	226.7	226.7	-3.3	223.4
Air Force.....	359.6	359.6	-2.2	357.4
Defense agencies.....	258.7	258.7	-2.9	255.8
Total.....	1,162.8	1,162.8	-22.4	1,140.4

This activity provides for research, development, test, and evaluation of equipment not separately provided for under other activities. Examples of the types of programs included are ocean engineering systems and technology development, chemical and biological agent detection and protective devices, combat clothing, tactical data proces-

sing systems, communications and electronic warfare equipment, improved logistics and materiel handling, mapping and geodetic systems, and biomedical projects. This activity also supports research and development effort at the Army Electronic Research and Development Laboratories.

The Committee recommends a reduction of \$22.4 million in this activity including \$14 million for the Army Project MALLARD which should be terminated, as discussed elsewhere in this report, \$3.1 million for the Navy Laboratory Independent Exploratory Development program which is reduced to the fiscal year 1970 level, \$2 million in the Navy Manpower Effectiveness program, \$1.7 million in the Air Force Project MALLARD, \$5 million in the Air Force Human Resources program, and \$5 million in the Defense Agencies (ARPA) Overseas Defense Research program. The reductions in Manpower Effectiveness, Human Resources, and Overseas Defense Research also are discussed elsewhere in this report.

Major Army development programs included under this activity are Surveillance, Target Acquisition and Night Operations Systems (STANO), General Combat Support, and Testing. For the Navy, it includes such programs as Undersea Target Surveillance exploratory and advanced development, and Command and Control exploratory development. The Air Force program emphasizes Ground Electronics exploratory development, Penetration Aids for aircraft, Electronic Warfare Systems, the Airborne Warning and Control System (AWACS), and technical support provided by Lincoln Laboratories and Mitre Corporation.

Defense Agency programs supported under this activity include the Advanced Research Projects Agency Nuclear Monitoring Research program (VELA), and Defense Atomic Support Agency program for Nuclear Weapons Effects test.

#### *Programwide Management and Support*

[In millions of dollars]

	Requested	H.R. 17123	Committee report	
			Change	Recommended
Army.....	52.3	52.3	-----	52.3
Navy.....	144.5	144.5	-----	144.5
Air Force.....	305.4	305.4	-----	305.4
Defense agencies.....	11.5	10.5	-----	10.5
Total.....	513.7	512.7	-----	512.7

For the Army and the Navy, this activity provides for those costs of operation, management, and maintenance of research, development, and test facilities which are not distributed directly to the other budget activities. For the Air Force it provides for certain costs of central administration such as the Air Force Systems Command Headquarters and divisions, as well as several large research, development, test, and evaluation centers.

The Committee recommends approval of the amounts requested under this budget activity except for the defense agencies program. The Committee concurs with the House reduction of \$1 million relating to

the Defense Documentation Center under the defense agencies program. Costs covered under this budget activity include civilian salaries and benefits, travel, communications, real property maintenance, and supplies and equipment.

The overall program presented by Defense is below the level of fiscal year 1970 and reflects a continuing decline in number of employees engaged in the operation and maintenance of the Department of Defense research and development activities supported under this activity. The austere level of this program can be better appreciated if it is recognized that average salaries for civilian personnel have been rising year after year without a corresponding increase in appropriated funds for that purpose.

#### SECTION 202—EMERGENCY FUND

The Committee recommends approval of the request for \$50 million, which would be authorized to be appropriated under Section 202 of the bill.

This amount is \$25 million below that appropriated for fiscal year 1970, and is considered the minimum needed to enable the Secretary of Defense to meet research, development, test and evaluation needs which materialize during the year and which are of such urgency that funding is deemed necessary beyond the capability of the Secretary of Defense to provide through the exercise of his reprogramming authority.

#### SECTION 203—DEPARTMENT OF DEFENSE FUNDING OF CONTRACTORS' INDEPENDENT TECHNICAL EFFORT

##### *Background*

The fiscal year 1970 Military Procurement Authorization Act, Section 403, established a limitation which provided that payments for independent research and development, bid and proposal, and other technical effort costs to contractors would not exceed 93 percent of the total amount contemplated for such purpose. This was an interim provision. It was agreed that the Committee would investigate the issue in depth in its consideration of the fiscal year 1971 authorization request.

The term IR&D, as commonly used, but more properly referred to as contractor independent technical effort includes three elements. These are independent research and development (IR&D), bid and proposal (B&P) and other technical effort (OTE). IR&D as one of these elements, is generally defined as that part of a contractor's total research and development program which is not performed under a specific contract, grant or similar agreement, and which is undertaken in areas at the discretion of the contractor. Bid and proposal represents costs incurred by contractors in the preparation of bids or proposals to the Department of Defense for new weapons systems or components. The difference between B&P and IR&D lies in the purpose for which the work is done. If it is done without the intent of including the results in a specific proposal, but has the more general aim of developing processes, products, or service capability, it is called IR&D. Other technical effort (OTE) encompasses a group of miscellaneous tech-



nical activities performed by contractors which is not identified either as IR&D or B&P. It is a hybrid classification which has grown up as an accounting convenience. The Department of Defense has proposed the elimination of this classification and the inclusion of such items under either the IR&D or the B&P categories.

#### *Alternatives*

The Committee's Ad Hoc Subcommittee on Research and Development held extensive hearings during which the Department of Defense, General Accounting Office, Atomic Energy Commission and four industry associations testified. Senators Proxmire and Cranston also appeared before the Subcommittee.

The Subcommittee was faced with three alternatives:

1. Recommend that no legislation be enacted so that Congress would continue to exercise no control over these payments.
2. Recommend adoption of S. 3003, which would be very limiting both as to the amounts and purposes which would qualify under this proposal.
3. Recommend a new provision which would provide a reasonable and feasible measure of control by the Congress, and which would not unduly burden the Department of Defense and industry with cumbersome and costly procedures.

#### *Recommendation*

The Committee's proposed amendment reflects the selection of the third alternative and has four main features:

- (1) It would require the Defense Department to negotiate advance agreements with all contractors who, during their preceding fiscal year, received IR&D, B&P, and OTE payments in excess of \$2,000,000.

The number of contractors covered by this provision would be approximately 50, the same approximate number with whom advance agreements are presently signed. Accordingly, there would be no major expansion of the number of individual negotiations in which the Department would have to engage.

These agreements, however, would have to cover not only the IR&D programs of these contractors, but their B&P and OTE programs as well. The Defense Department has acknowledged that an expanded ceiling of this kind is needed if a solution is to be found to the present practice whereby companies subvert their IR&D ceilings by classifying certain expenditures in the B&P and OTE accounts.

While only 50 or so companies will be covered by this \$2 million threshold, these companies account for the great bulk of all auditable independent technical effort funds disbursed by the Department, which amounted to 93.1% in 1968 and 95.6% in 1969.

- (2) It would require that the IR&D portions of these advance agreements be accompanied by technical evaluations of contractors' proposed IR&D programs. These evaluations must be improved if the Department is to be assured that the work done is of great potential value to its future needs.

- (3) It would require that no payments be made for IR&D, B&P, and OTE work not relevant to the functions and operations of the Department of Defense. This provision should serve as a directive to the Department to avoid a recurrence of the isolated past instances

in which Department funds have been used to fund the research of contractors on commercial products.

(4) It would establish a ceiling of \$625,000,000 on the payments to be made pursuant to the advance agreements required to be negotiated during fiscal year 1971.

The Department of Defense opposes the establishment of such a ceiling. However, the Committee is convinced that a ceiling is essential if the Congress is to be assured that costs in this area do not continue to rise at an unacceptable rate, and to provide the basis for an annual review of this program.

It has given considerable attention to the alternative types of ceilings it could establish and has rejected both line item control and a ceiling based on a given year's funds as administratively unworkable. The approach actually chosen will require the Department to do nothing more than to divide the \$625,000,000 available to it among the 50-odd companies with which agreements are required.

The Military Departments have provided the Committee with estimates indicating projected total payments for contractor independent technical effort programs of \$656 million for the year 1970 and \$645 million for the year 1971, compared with the \$759 million reported for 1969. Although these amounts are recognized as estimates, their downward trend is consistent with the ceiling of \$625 million recommended by the Committee. Indeed, since the \$625 million ceiling covers only those large companies who may be expected to receive about 95% of the total payments made, the ceiling actually affords the Department leeway to exceed its present estimates.

#### *Consideration of S. 3003*

A primary purpose of the Committee hearings was the evaluation of S. 3003. The Committee recommends against enactment of S. 3003 because in its view this bill would produce a series of adverse effects on both the Defense Department programs and defense industry which would far outweigh any of its benefits. S. 3003 would prohibit the reimbursement of a company for its IR&D and OTE costs unless such costs were specifically provided for in a given contract. In such event, the contractor in question would have to submit to the Defense Department a technical appraisal of each IR&D project covered, and reimbursement would not be allowed unless the work at issue was of direct or indirect benefit to the work being performed under the contract.

S. 3003 also would restrict reimbursement for B&P costs by providing a ceiling of one percent of the direct materiel and direct labor cost of the contract under which these reimbursements would be made.

The provisions of S. 3003 relating to IR&D and OTE would eliminate much of the contractor independence which is so important because it permits contractors a wide degree of latitude in pursuing promising goals. The overall effect of a system under which all IR&D projects had to be contracted for specifically would be the elimination of IR&D as it is presently known and the substitution of direct contracting as a universal policy.

This would result in significantly higher administrative costs for the Defense Department as well as a marked decrease in the amount of research work performed by defense industry. Such a decrease would inevitably occur because of the stringency of an elaborate ad-

ministrative system. The flexibility which contractors presently enjoy in the process of trial and error necessary to the solution of technical problems would be lost.

The proposed limitation on B&P reimbursement as a percentage of direct material and labor costs is not meaningful because such expense has no direct relationship to these costs. It is related to the contractor's backlog of work and the magnitude and complexity of the equipment on which he quotes. As a result, B&P expenses fluctuate considerably between contractors and for individual contractors from year to year. A common formula as proposed by S. 3003, therefore, is not meaningful.

While the Committee is convinced, as a result of its hearings, that enactment of S. 3003 is not advisable, it is also convinced that Defense Department administration can be significantly improved and the costs of these programs reduced. The Committee was disturbed by recent increases in the total spending by the Defense Department for this program. Between 1963 and 1969 the amount increased from \$459 million to \$759 million, a rate of growth significantly greater than the rate of growth in the Defense Department procurement budget.

#### *Department of Defense Plan*

The Department of Defense proposed the following 5 point plan as a means of overcoming these problems.

(1) The improved use of individually negotiated advance agreements for the control and reimbursement of these costs for approximately 100 of the largest defense contractors.

(2) A strengthening of the Department's technical review and evaluation procedures in this area.

(3) Establishment of a data bank to provide a centralized body of IR & D project cost and technical information.

(4) The use of a standard formula in determining the reimbursable costs of the large number of small contractors whose volume of sales to the Department does not justify the negotiation of advance agreements.

(5) An increase in the resources of the military departments such as is necessary to permit implementation of the first four points.

#### *Conclusion*

The Committee supports the Department in its efforts to improve its administration in this complex area, and urges strongly that immediate steps be taken to implement the above plan, consistent with the amendment proposed by the Committee. The Committee believes also, however, that the importance of contractor independent technical effort programs to our security, and the amount of money used annually to fund them, both justify broad legislative controls by the Congress in this area.

#### SECTION 204—REENACTMENT OF PROVISIONS REQUIRING DIRECT RELATIONSHIP TO MILITARY FUNCTIONS FOR RESEARCH EFFORTS

The military authorization legislation for fiscal year 1970 contained a provision prohibiting the use of research funds by the Department of Defense for those projects which would not have a direct and apparent relationship to a specific military function or operation.

As a result of this provision, all of the defense research programs were reviewed, and projects totaling \$8.2 million were identified as coming within the criteria.

The Committee fully recognizes that a considerable latitude must be extended to research and development activity generally. At the same time, parameters should be established to insure that funds appropriated for defense research are used for that purpose. It is the view of the Committee that the section enacted for fiscal year 1970 has had a beneficial effect.

The Committee recommends that this section be reenacted as Section 204 without change, in order to provide the same restriction on research and development funds for fiscal year 1971.

#### SECTIONS 205-208—INTERAGENCY COUNCIL ON DOMESTIC APPLICATIONS OF DEFENSE RESEARCH

The Committee has recommended a new provision of law in recognition of the benefits that defense research might provide for various elements of our domestic programs. There are many activities in defense research which might result in spin-off benefits to many areas of our nation's domestic problems. Some examples include the application of military radar and computer technology to civilian air traffic control functions, experimental work on housing on military bases, certain types of manpower training and educational research, and many others. The Committee, in order to carry out this purpose as provided in Sections 205 through 208, recommends the following provisions.

(a) The creation of an Interagency Advisory Council on Domestic Applications of Defense Research composed of eight members from various governmental departments.

(b) A statutory mandate of this council to evaluate research programs and projects which could have mutual interest to both the Department of Defense and one or more of the participating agencies, subject to the strict requirement that the project must have a specific and direct relationship to a military function or activity.

(c) The extension of authority to the Secretary of Defense to make grants to educational institutions for selected programs in an amount not to exceed five percent of the Defense basic research programs. This amount could be approximately \$20 million per year. There is the further proviso that no institution will receive more than \$5 million in any given fiscal year.

#### *Permissive Nature of Authority*

It should be emphasized that the authority of the Secretary of Defense is permissive and not mandatory with regard to the award of grants under this program.

### TITLE III—RESERVE FORCES

#### *Summary*

Title III of the bill is in pursuance of Public Law 90-168 which, among other things, provides that the personnel strength of each of the Selected Reserve components be authorized on an annual basis.

Such annual authorization is a prior condition for the appropriation of the pay and allowances for these Reserve components.

Specifically, section 6 of the law provides as follows:

Beginning with the fiscal year which begins July 1, 1968, and for each fiscal year thereafter, the Congress shall authorize the personnel strength of the Selected Reserve of each Reserve component of the Armed Forces; and no funds may be appropriated for any fiscal year beginning on or after such date for the pay and allowances of members of any Reserve component of the Armed Forces unless the personnel strength of the Selected Reserve of such Reserve component for such fiscal year has been authorized by law.

*Personnel Strengths for Fiscal Year 1971*

The bill provides that for the year beginning July 1, 1970 and ending June 30, 1971 the Selected Reserve of each Reserve component of the Armed Forces will be programmed to attain an average strength of not less than the following:

1. The Army National Guard of the United States, 400,000.
2. The Army Reserve, 260,000.
3. The Naval Reserve, 129,000.
4. The Marine Corps Reserve, 47,715.
5. The Air National Guard of the United States, 87,878.
6. The Air Force Reserve, 47,921.
7. The Coast Guard Reserve, 10,000.

Except for the Coast Guard, which is under the jurisdiction of Department of Transportation, the average strengths reported in this bill were recommended by the Secretary of Defense. Witnesses from Army, Navy and Air Force have testified that the recommended strengths will provide adequate personnel to perform the missions of the various Reserve components in fiscal year 1971.

*Average Strength Versus End Strength*

The Department of Defense has interposed no objection to the average strength formula as opposed to the end strength formula. For this reason, the Committee has agreed to retain the average strength method of computation. The average strength is computed on a man-year basis. In this manner, the desired levels are maintained and the program remains flexible to permit upward and downward adjustments as necessary.

THE RESERVE COMPONENTS

*Army*

Both the Army National Guard and the U.S. Army Reserve strengths are slightly higher than those of the previous fiscal year. These increases reflect upward adjustments to account for Guardsmen and Reservists released from active duty. Of the 76 Army National Guard and Army Reserve units mobilized in the spring of 1968, 43 units served in Vietnam. These 43 units have all been released from active duty. The remaining 33 units were all released prior to mid-December 1969. Individual Reservists who were assigned to Vietnam as replacements have been discharged after completion of a normal tour or their obligation.

*Navy*

During the hearings for fiscal year 1969, it was determined that a strength figure of 139,000 would be the ultimate strength objective for the Navy Selected Reserve. Expenditure limitations and reduction in the number of ships and aircraft in the inventory during fiscal year 1969 and fiscal year 1970 and reduction of the active forces have resulted in a change in computation of mobilization requirements. For these reasons the average strength has remained at 129,000 since fiscal year 1969.

Of the units mobilized in 1968, two Reserve Mobile Construction Battalions served in Vietnam and performed a variety of Seabee construction projects. All had been released from active duty by mid-May 1969.

*Marine Corps*

The authorized strength for fiscal year 1971 (47,715) is less than that of the previous year (49,489). The Committee is assured that the Marine Corps Reserve is in a high state of readiness and that a combat ready force can be deployed in 60 days following mobilization.

*Air Force*

For the Air National Guard, the bill provides an average strength of 87,878; and for the Selected Reserve, the average strength is 47,921. These figures represent a very slight reduction from those of the previous year.

Aircraft of the Selected Reserve logged more than 27 million passenger miles in support of the active Air Force which was accomplished primarily as a by-product of normal training.

Fifty-one volunteer pilots in the Selected Reserve flew C-124 aircraft in the Military Airlift Command during short tours ranging from 30 to 179 days.

The Air National Guard, too, continued its support of the active Air Force flying cargo, aeromedical evacuation, reconnaissance, and air refueling. It also fulfilled its domestic role in disaster relief during hurricane Camille.

*Coast Guard*

The fiscal year 1971 budget request did not seek authorizing legislation for Selected Reserve strength for the Coast Guard. The Committee is aware that the President's budget for fiscal year 1971 reflects a decision to phase out the Coast Guard's Selected Reserve training program by June 30, 1971. The Committee is also aware that the Department of Transportation budget request for fiscal year 1971 seeks \$10 million to accomplish the phaseout of the Coast Guard Selected Reserve during that fiscal year.

The approval for the Selected Reserve within the Coast Guard is provided for in Section 2(8)(c) of Public Law 90-168 as follows:

The organization and unit structure of the Selected Reserve shall be approved—

(1) In the case of the Coast Guard Reserve, by the Secretary of Transportation upon the recommendation of the Commandant of the Coast Guard, . . .

For these reasons the Defense Department made no recommendation with respect to the Coast Guard Selected Reserve. The bill as passed by the House recommends a Selected Reserve Strength of 16,590 for the Coast Guard.

The wartime mission of the Coast Guard Reserve as developed during the hearings, represents an extension of the Coast Guard's peacetime responsibility. These are port security and port safety; vessel augmentation; surveillance and anti-submarine warfare patrol; merchant marine safety; ice breaking; navigational aids; search and rescue; aviation and other support activities.

The proposed phase-out would impact seriously on the timeliness of the Coast Guard's ability to perform these missions under mobilization conditions. Early response requirements could not be speedily met. Aside from new inductees who must be trained, the only experienced pool available would be Coast Guard retirees and enlistees who are required to serve on a standby status for a period of two years after completion of a four-year active tour. During the period ending June 30, 1969, there were only 3,062 standby Reservists and 1,124 in the retired Reserve.

The Committee does not agree that the Coast Guard Reserve should be phased out as proposed. To depend entirely on the alternate manpower resources would result in an unacceptable degree of readiness in the event of mobilization. For this reason we believe the Coast Guard should have an organized Reserve to provide a nucleus for early rapid expansion.

Since there has not been an involuntary callup of the Coast Guard Reserve units since World War II, the Committee believes that a reduction in personnel strength is justified. It is believed that a strength level of 10,000 well-organized and well-trained Selected Reserves can provide the hard core for early expansion to meet the wartime mission.

The Committee also believes that the Coast Guard should improve its reserve training program to require more exposure to training under realistic conditions particularly during their active duty periods.

The training of Coast Guard reservists in the port security mission can be accomplished by utilizing many of them in productive peacetime on-the-job endeavors of the regular Coast Guard. Such tasks would include disasters such as hurricanes, oil spills, waterfront fires, and explosions, etc.

The Committee believes that the need for port security forces both on an emergency and mobilization basis will continue for an indefinite period and a minimum Selected Reserve force of 10,000 officers and men should enable the Coast Guard to meet the most urgent needs in the major port areas of the country in either a state of emergency or during the early stages of mobilization.

### Approved Strength

The approved average strengths as recommended by the Army, Navy, Air Force, and the Department of Defense are shown in the following chart, together with the authorized and adjusted strengths for fiscal year 1971. The chart also shows the strength level of 16,590 for the Coast Guard as provided in the House bill and 10,000 as recommended by this Committee.

FISCAL YEAR 1971 RESERVE COMPONENTS PAID DRILL AVERAGE STRENGTHS, REVISED

Component	Authorized average strength, fiscal year 1970, Public Law 91-121	Adjusted average strength, fiscal year 1970	Budget submission, fiscal year 1971	House changes subsequent to budget submission	Average strength as recommended by Senate Armed Services Committee
Army National Guard.....	393,298	393,298	400,000	.....	400,000
U.S. Army Reserve.....	255,591	258,796	260,000	.....	260,000
Naval Reserve.....	129,000	129,000	129,000	.....	129,000
U.S. Marine Corps Reserve.....	49,489	48,329	47,715	.....	47,715
Air National Guard.....	86,624	87,046	87,878	.....	87,878
Air Force Reserve.....	50,775	47,422	47,921	.....	47,921
Total, DOD.....	964,777	963,891	972,514	.....	972,514
U.S. Coast Guard Reserve.....	17,500	15,000	.....	16,590	10,000
Total, Reserve.....	982,277	978,891	972,514	16,590	982,514

<sup>1</sup> Budget provides 47,563.

<sup>2</sup> Adjusted by PBD 80C, Jan. 19, 1970.

### COST OF RESERVE COMPONENTS

The provisions of this bill relating to the Reserve personnel strength are not concerned directly with cost, but are confined to the authorization of personnel strength.

The following chart does provide the anticipated personnel cost for the Reserve components during fiscal year 1971. Also shown are the other budget elements, including operation and maintenance, construction, and procurement for the Reserve components.

FISCAL YEAR 1971 RESERVE COMPONENTS PRESIDENT'S BUDGET

(In millions of dollars)

Component	Personnel <sup>1</sup>	O. & M.	Construction	Subtotal	Procurement <sup>2</sup>	Total
Army National Guard.....	387.1	287.4	15.0	689.5	79.3	1,247.3
Army Reserve.....	336.5	132.0	10.0	478.5	.....	261.0
Naval Reserve.....	144.2	111.1	5.0	260.3	7	90.0
Marine Corps Reserve.....	54.1	7.0	(4)	61.1	28.9	725.8
Air National Guard.....	108.5	343.6	8.0	460.1	.....	.....
Air Force Reserve.....	86.2	129.6	4.0	219.8	45.9	.....
Total.....	1,116.6	1,010.7	42.0	2,169.3	154.8	2,324.1
Grand total.....	.....	.....	.....	.....	.....	2,531.5

<sup>1</sup> Does not include active personnel support for Reserve components (\$204.1) nor family housing costs (\$3.3).

<sup>2</sup> Distribution of procured equipment is accomplished by separate schedule and extends over several years.

<sup>3</sup> Includes \$49,700,000 ROTC funds.

<sup>4</sup> Included in Naval Reserve budget.

<sup>5</sup> Coast Guard Reserve budget not included in this total. It is estimated to be approximately \$19,000,000.

Source: Fiscal year 1971 President's budget (PEMA Jan. 5, 1970 FYDP).



#### TITLE IV—SAFEGUARD ANTI-BALLISTIC MISSILE SYSTEM

Under section 401 of this title the bill provides authorization of funds for military construction of SAFEGUARD in a sum not to exceed \$334 million as follows:

	<i>Millions</i>
Supporting facilities and land acquisition-----	\$322
R.D.T. & E. facilities Kwajalein-----	3.2
Family housing -----	8.1

Section 402 limits the funds authorized in the bill to initiating deployment of SAFEGUARD at Whiteman Air Force Base, Missouri, and initiation of site advanced preparation to Warren Air Force Base, Wyoming. This matter is discussed fully beginning on page 18 of this report.

#### TITLE V—GENERAL PROVISIONS

##### SEC. 501—AUTHORITY FOR THE TRANSFER OF AIRCRAFT TO THE STATE OF ISRAEL

In section 501 the Committee recommends a provision of law relating to support for the security of the state of Israel. The Committee action arises out of a recognition of the deteriorating military balance and the threat to world peace resulting from the deepening involvement of the Soviet Union in the Middle East, particularly their support of a war of attrition against Israel.

The Committee believes that the sale to Israel of aircraft, and equipment necessary to use, maintain and protect such aircraft, should be authorized at once to facilitate action by the administration consistent with our policy of support for the security of Israel. The rapidity with which the military balance in the Middle East is being adversely affected by direct Soviet intervention calls for an authority in law that would make possible the sale of arms necessary to offset any past, present or future increased military assistance to other countries of the Middle East.

In Section 501 the Committee affirms its view that the restoration and subsequent maintenance of the military balance in the Middle East is essential to the security of Israel and to world peace. In recognition of the severe economic burden presently borne by Israel in providing for its own defense, the Committee further provides that the credit terms upon which the authorized arms should be transferred be not less favorable than the terms extended to other countries receiving the same or similar armaments.

##### SECS. 502(a)(1)—CONTINUATION OF FUNDING AUTHORITY FOR THE SUP- PORT OF FREE WORLD FORCES IN SOUTH VIETNAM, LAOS, AND THAILAND

In Section 502(a)(1) of the bill language is proposed to be reenacted for fiscal year 1971 which, with two exceptions (explained below), is identical to authority which has been enacted each year beginning in fiscal year 1966 which authorizes separate and later appropriation actions that make Department of Defense appropriations available (1) for the support of Vietnamese and other free world forces in sup-

port of Vietnamese forces, (2) in support of local forces in Laos and Thailand, and for related costs, on such terms and conditions as the Secretary of Defense may determine.

*Limitation of \$2,500,000,000 on Authorization*

As the bill passed the House, the language contained no limitation on the amount of funds that could be appropriated for the stated purposes of free world forces in Southeast Asia. The Committee adopted a limitation of \$2.5 billion which could be used for this purpose from fiscal year 1971 funds. This sum is in excess of the estimated use of funds for this purpose during fiscal year 1971 and should be sufficient to accomplish the stated purposes.

*Clarification of Use of Funds in Vietnam*

Since fiscal year 1966 this provision has authorized the use of such funds to support "Vietnamese and other free world forces in Vietnam". It should also be noted that the section includes authority for the payment of "related costs" all on such terms and conditions as the Secretary of Defense may determine.

The Committee is of the opinion that the phrase "in Vietnam" should be the subject of clarification and therefore has substituted the words "in support of Vietnamese forces". The reason for the substitution is to make clear the use of the authority for the purpose of supporting non-U.S. free world forces with respect to the border sanctuary and related area operations in Cambodia, and the protective reaction strikes in these locations. This clarification is for the purpose of protecting U.S. troops and the acceleration of the Vietnamization program.

The complete text of this provision as recommended by the Committee is as follows:

SEC. 502. Subsection (a) of section 401 of Public Law 89-367 approved March 15, 1966 (80 Stat. 37), as amended, is hereby amended to read as follows:

"(a) (1) Not to exceed \$2,500,000,000 of the funds authorized for appropriation for the use of the Armed Forces of the United States under this or any other Act are authorized to be made available for their stated purposes to support: (1) Vietnamese and other free world forces in support of Vietnamese forces, (2) local forces in Laos and Thailand; and for related costs, during the fiscal year 1971 on such terms and conditions as the Secretary of Defense may determine.

*Explanation*

The Committee is of the opinion that the use of the authority in section 401 of the fiscal year 1970 act (and its related appropriation act provision) to support South Vietnamese and other free world forces in border sanctuary operations in Cambodia and in protective reaction strikes in these same areas was correct. Such action is in line with the policy of Vietnamization which in turn has and will continue to assist in the reduction of U.S. forces in Vietnam and the protection of such U.S. forces as remain in Vietnam. Doubt has been expressed by some that because of the use of the words "in Vietnam" in this section, as to whether any support for South Vietnamese or free world forces outside of Vietnam in the sanctuaries of Cambodia is authorized. The Committee desires that there be no misunderstanding about the authority for those important actions and has accordingly changed the language of this section to remove all such doubt.

In making this clarification it must be clearly understood that there is no intent to broaden the authorization beyond the support of participation in border sanctuary and related operations in order to protect U.S. forces in Vietnam or to accomplish protective reaction strikes. The purpose of the clarification is to make clear that the use of Defense funds is authorized for support in those areas of Cambodia where for the purposes of Vietnamization or the protection of U.S. troops military action becomes necessary.

There is no intent to permit the use of DOD appropriations under this authority to support Vietnamese and other free world forces in actions designed to provide military support and assistance to the Cambodian Government.

*Historical Background of Funding Authority*

As indicated above this authorization is not new. Similar language has been carried each year in the authorizations and appropriations acts for the Department of Defense beginning in fiscal year 1966. The section is needed because otherwise there would be no authority to use funds appropriated to the Department of Defense to support other than U.S. forces. This limited merger of funding of support of allied forces in a combat area with that of United States forces engaged in the same area is similar to the practice followed during the Korean War.

This section authorizes separate and later appropriation actions that would make Department of Defense appropriations available for the support of South Vietnamese and other free world forces in Vietnam, including local forces in Laos and Thailand, and for related costs. The authorizations permits such appropriation action whether the funds are authorized for appropriation under this or any other act. For instance, it authorizes the Procurement and RDT&E funds authorized under this act to be made available for these purposes and it also authorizes the military personnel and operation and maintenance type funds (the appropriation of which is authorized under other permanent law) to be made available for these purposes.

There is an additional provision of permanent law related to this section which requires the Secretary of Defense to report to the Congress the value of support furnished under these authorities at the end of each quarter.

SEC. 502 (a) (2)—REQUIREMENT OF NOTIFICATION AND CONSENT FOR DEFENSE ARTICLES GIVEN BY SOUTHEAST ASIAN COUNTRIES TO THIRD PARTIES

This section would seem worthwhile to enact because it responds to a need for the United States to make an effort to control the use and disposition of the weapons it is supplying in Southeast Asia, to the same degree of control as defense articles now furnished under both the Military Assistance Program and Military Sales Program.

The section would prohibit the transfer of U.S. defense articles to Southeast Asia free world forces, or local forces, unless recipient governments agreed to certain restrictions on their use and return.

The agreement would be to the effect that unless the President gives consent, the recipient country would not (1) permit use of defense articles furnished other than by government officials, employees and

agents of said recipient (2) transfer them by gift or sale or (3) use them other than for the purposes for which furnished.

The other important part of the agreement would provide that when no longer needed for the purpose furnished, the defense articles would be returned to the U.S. government, unless the President consented to other disposition.

Because the section prohibits furnishing the defense articles without the agreement discussed above, this could have the effect of cutting off the furnishing of defense articles immediately upon enactment. As a practical matter, to comply with this provision, the Executive Branch would need a period of time to execute the agreements required.

A period not to exceed sixty days would be allowed for negotiating the agreements required under the terms of the section.

The other provisions of the section require a report to the Speaker and the President of the Senate on the implementation of each agreement.

Also, the Presidential consent required to allow the recipient government to use or dispose of the weapons other than as specified could not become effective until 15 days after the Speaker and the President of the Senate were notified.

**SEC. 503—REQUIREMENT OF CERTIFICATION BY DEPARTMENT OF DEFENSE ON THE STRUCTURAL INTEGRITY OF THE F-111 AIRCRAFT AS A PRIOR CONDITION FOR THE OBLIGATION OF FUNDS**

Section 503 is discussed on page 27 of this report. This section sets forth mandatory language under which the Secretary of Defense prior to obligating the sum of \$283 million for the procurement of F-111 aircraft must determine that the plane has successfully met a comprehensive structural integrity test program, approved the procurement of such aircraft, and certified the approved program and findings to the Committees on Armed Services of the House and Senate.

**SEC. 504(a)—REQUIREMENT OF APPROVAL OF COMMITTEES ON ARMED SERVICES OF THE SENATE AND HOUSE OF THE PLAN FOR EXPENDITURE OF \$200 MILLION FOR THE C-5A PROGRAM PRIOR TO ITS OBLIGATION**

Section 504(a) is discussed on page 16 of this report under the heading of the C-5A Aircraft Program. In substance, this section (504(a)) stipulates that of the \$200 million authorized to be appropriated for the C-5A program under this act, this amount will not be obligated until a plan for the expenditure of such funds has been submitted by the Secretary of Defense to the Armed Services Committees of the House and Senate and the Committees have approved such plan. The purpose of this section is to insure that the overall financing plan of the C-5A program is presented and approved by the Committees prior to the obligation of the \$200 million of this program.

**SEC. 504(b)—STATUTORY PROVISION TO INSURE THAT THE \$200 MILLION FOR THE C-5A PROGRAM OF THE CONTRACTOR**

This section 504(b) is discussed on page 16 of this report. In substance, statutory language is recommended which would insure that the \$200 million authorized for the C-5A program in this bill will be utilized strictly for the C-5A program and not for any other production activity of the Lockheed Corporation.

SEC. 505—REQUIREMENT OF AUTHORIZATION LEGISLATION FOR NAVAL  
TORPEDOES BEGINNING FISCAL YEAR 1972

Section 505 would provide that after December 31, 1970, no funds may be appropriated for the use of the Navy for the procurement of torpedoes and related support equipment unless the appropriation of such funds has been authorized by legislation enacted after such date.

Presently torpedoes are funded by appropriations under the Other Procurement, Navy, account and do not require authorization. The Committee felt in view of the history of the present torpedo programs, i.e., cost overruns, technical problems and dual development, the responsibility of the Committee would be properly exercised by bringing this weapon system under the authorization process.

An appropriation for a small number of the Navy's new MARK-48 torpedoes has been requested for the 1971 fiscal year. While this request indicates the initial unit cost will approach \$1 million, these unit costs will drop as the program stretches out well over a decade. If the total program remains unchanged costs are projected to exceed \$3.5 billion. In view of such high costs and the importance of an accurate and dependable torpedo for our submarine fleet it was felt by the Committee the torpedo program should be given the same close attention accorded other weapon systems which come under the authorization process.

SEC. 506—CERTAIN LIMITATIONS AND STANDARDS RELATING TO CHEMICAL  
AND BIOLOGICAL WARFARE

Section 506 is fully discussed beginning on page 86 of this report. It provides for reinstatement of last year's provision prohibiting procurement of delivery systems for lethal chemical and biological warfare agents; adds a provision relating to safety procedures for disposal of such agents; and directs a study on the use of herbicides.

## DEPARTMENTAL RECOMMENDATION

Following is letter dated February 2, 1970, from the Secretary of Defense forwarding a draft of the proposed legislation to authorize appropriations during fiscal year 1971.

THE SECRETARY OF DEFENSE,  
*Washington, D.C., February 2, 1970.*

HON. SPIRO T. AGNEW,  
*President of the Senate,*  
*Washington, D.C.*

DEAR MR. PRESIDENT: There is forwarded herewith a draft of proposed legislation to authorize appropriations during fiscal year 1971 for procurement of aircraft, missiles, naval vessels, and tracked combat vehicles, and other weapons, and research, development, test, and evaluation for the Armed Forces, and to prescribe the authorized personnel strength of the Selected Reserve of each Reserve component of the Armed Forces, and for other purposes. This proposal is a part of the Department of Defense legislation program for the 91st Congress, and the Bureau of the Budget has advised that enactment of the proposal would be in accord with the program of the President.

This proposal is identical in form to the provisions of Public Law 91-121, approved November 19, 1969, providing authorization for appropriations as required pursuant to section 412(b), Public Law 86-149, as amended.

This proposal would provide for authorization of appropriations as needed for procurement in each of the categories of aircraft, missiles, naval vessels, and tracked combat vehicles for each of the military departments in an amount equal to the appropriations being requested for such purposes in the President's budget for fiscal year 1971. For the first time there is also included authorization of appropriation for other weapons as required by language amending section 412(b) by section 405 of Public Law 91-121 in amounts included in the budget for fiscal year 1971. In addition, the proposal would provide fund authorization in amounts equal to the appropriations included in the President's budget for fiscal year 1971 in total for each of the research, development, test, and evaluation appropriations for the military departments and the defense agencies. Appropriations are also authorized for the emergency fund for research, development, test, and evaluation or procurement or production for the Department of Defense.

Title III of the proposal provides for the personnel strengths of the Selected Reserve of each Reserve component of the Armed Forces in the number provided for by appropriations requested for these components in the President's budget for fiscal year 1971.

The proposal would also continue for fiscal year 1971 the authority now contained in section 401(a) of Public Law 89-367, as amended, for appropriations of the Department of Defense to be made available for the support of the (1) Vietnamese and other free world forces in Vietnam, and (2) local forces in Laos and Thailand.

As in the past, this section constitutes the authority for the inclusion in the President's budget estimates for appropriations of Department of Defense for fiscal year 1971 of the amounts to cover known requirements for the support of local forces in Laos and Thailand.

In addition, under the authority of this section a request for a special appropriation entitled "Combat Readiness, South Vietnamese Forces" has been included in the President's budget for fiscal year 1971. The special appropriation is in the amount of \$300 million together with authority to transfer between appropriations for the Department of Defense of \$150 million, such funds and authority to be utilized only upon the determination by the President that such action is necessary and with his approval.

The specific requirements to support the most effective program for transfer of combat responsibility to the forces of South Vietnam are being developed. The current studies are designed to develop forces, equipment, and support requirements covering accelerated Vietnamization of the conflict. These funds and the authority will be utilized only as and when needed for this purpose and will enable prompt action to accelerate Vietnamization when the requirements are finalized.

The reporting requirements of subsection (b) of section 401 cited above would be equally applicable to the support furnished Laos and Thailand under this amendment.

As in the past, top civilian and military officials of the Department of Defense will be prepared to make presentations explaining and justifying their respective programs and additionally the Department of Defense will be prepared to submit any other data required by the committees or their staffs.

Sincerely,

MELVIN R. LAIRD

## CHANGES IN EXISTING LAW

In compliance with subsection 4 of rule XXIX of the Standing Rules of the Senate, changes in existing law proposed to be made by the bill are shown as follows: Existing law to be omitted is enclosed in black brackets, new matter is printed in italic, and existing law in which no change is proposed is shown in roman.

### Public Law 91-121 (83 Stat. 204)

\* \* \* \* \*

#### TITLE IV—GENERAL PROVISIONS

\* \* \* \* \*

**[SEC. 403. Funds authorized for appropriation under the provisions of this Act shall not be available for payment of independent research and development, bid and proposal, and other technical effort costs incurred under contracts entered into subsequent to the effective date of this Act for any amount in excess of 93 per centum of the total amount contemplated for use for such purposes out of funds authorized for procurement and for research, development, test, and evaluation. The foregoing limitation shall not apply in the case of (1) formally advertised contracts, (2) other firmly fixed contracts competitively awarded, or (3) contracts under \$100,000.]**

### Public Law 89-367 (80 Stat. 37)

\* \* \* \* \*

#### TITLE IV—GENERAL PROVISIONS

\* \* \* \* \*

Sec. 401. (a) (1) Not to exceed \$2,500,000,000 of the funds authorized for appropriation for the use of the Armed Forces of the United States under this or any other Act are authorized to be made available for their stated purposes to support: **[(1)]** (A) Vietnamese and other free world forces in **[Vietnam]** support of *Vietnamese forces*, **[(2)]** (B) local forces in Laos and Thailand; and for related costs, during the fiscal year 1971 on such terms and conditions as the Secretary of Defense may determine.

(2) *No defense article may be furnished to the South Vietnamese forces, other free world forces in Vietnam, or to local forces in Laos or Thailand with funds authorized for the use of the Armed Forces of the United States under this or any other Act unless the government of the forces to which the defense article is to be furnished shall have agreed that—*

(A) *it will not, without the consent of the President—*

(i) *permit any use of such article by anyone not an officer, employee, or agent of that government,*

(ii) *transfer, or permit any officer, employee, as agent of that government to transfer such article by gift, sale, or otherwise, or*

(iii) use or permit the use of such article for purposes other than those for which furnished;

(B) it will maintain the security of such article, and will provide substantially the same degree of security protection afforded to such article by the United States Government;

(C) it will, as the President may require, permit continuous observation and review by, and furnish necessary information to, representatives of the United States Government with regard to the use of such article; and

(D) unless the President consents to other disposition, it will return to the United States Government for such use or disposition as the President considers in the best interests of the United States, any such article which is no longer needed for the purpose for which it was furnished.

The President shall promptly submit a report to the Speaker of the House of Representatives and the President of the Senate on the implementation of each agreement entered into in compliance with this paragraph. The President may not give his consent under clause (A) or (D) of this paragraph with respect to any defense article until the expiration of fifteen days after written notice has been given to the Speaker of the House of Representatives and the President of the Senate regarding the proposed action of the President with respect to such article. As used in this paragraph the term 'defense article' shall have the same meaning prescribed for such term in section 644(d) of the Foreign Assistance Act of 1961. In order to allow a reasonable period of time for the Department of Defense to comply with the requirements of this paragraph, the provisions of such paragraph shall become effective sixty days after the date of enactment of this section.

Public Law 86-149 (73 Stat. 302)

#### TITLE IV—GENERAL PROVISIONS

SEC. 412. (a) \* \* \*

(b) No funds may be appropriated after December 31, 1960, to or for the use of any armed force of the United States for the procurement of aircraft, missiles, or naval vessels, or after December 31, 1962, to or for the use of any armed force of the United States for the research, development, test, or evaluation of aircraft, missiles, or naval vessels, or after December 31, 1963, to or for the use of any armed force of the United States for any research, development, test, or evaluation, or after December 31, 1965, to or for the use of any armed force of the United States for the procurement of tracked combat vehicles, or after December 31, 1969, to or for the use of any armed force of the United States for the procurement of other [weapons] weapons, or after December 31, 1970, to or for the use of the Navy for the procurement of torpedoes and related support equipment unless the appropriation of such funds has been authorized by legislation enacted after such dates.



Public Law 91-121 (83 Stat. 209)

\* \* \* \* \*

TITLE IV—GENERAL PROVISIONS

\* \* \* \* \*

SEC. 409. (a) The Secretary of Defense shall submit semiannual reports to the Congress on or before January 31 and on or before July 31 of each year setting forth the amounts spent during the preceding six-month period for research, development, test and evaluation and procurement of all lethal and nonlethal chemical and biological agents. The Secretary shall include in each report a full explanation of each expenditure, including the purpose and the necessity therefor.

(b) None of the funds authorized to be appropriated by this Act or any other Act may be used for the transportation of any lethal chemical or any biological warfare agent to or from any military installation in the United States, ~~or the open air testing of any such agent within the United States~~ *or the open air testing of any such agent within the United States, or the disposal of any such agent within the United States* until the following procedures have been implemented:

(1) the Secretary of Defense (hereafter referred to in this section as the "Secretary") has determined that the transportation or testing proposed to be made is necessary in the interests of national security;

(2) the Secretary has brought the particulars of the proposed ~~transportation or testing~~ *transportation, testing, or disposal* to the attention of the Secretary of Health, Education, and Welfare, who in turn may direct the Surgeon General of the Public Health Service and other qualified persons to review such particulars with respect to any hazards to public health and safety which such ~~transportation or testing~~ *transportation, testing, or disposal* may pose and to recommend what precautionary measures are necessary to protect the public health and safety;

(3) the Secretary has implemented any precautionary measures recommended in accordance with paragraph (2) above (including, where practicable, the detoxification of any such agent, if such agent is to be transported to or from a military installation for disposal) : *Provided, however, That in the event the Secretary finds the recommendation submitted by the Surgeon General would have the effect of preventing the proposed* ~~transportation or testing~~ *transportation, testing, or disposal, the President may determine that overriding considerations of national security require such* ~~transportation or testing~~ *transportation, testing, or disposal* ~~be conducted. Any~~ ~~transportation or testing~~ *transportation, testing, or disposal* conducted pursuant to such a Presidential determination shall be carried out in the safest practicable manner, and the President shall report his determination and an explanation thereof to the President of the Senate and the Speaker of the House of Representatives as far in advance as practicable; and

(4) the Secretary has provided notification that the [transportation or testing] *transportation, testing, or disposal* will take place, except where a Presidential determination has been made: (A) to the President of the Senate and the Speaker of the House of Representatives at least 10 days before any such transportation or disposal will be commenced and at least 30 days before any such testing will be commenced; (B) to the Governor of any State through which such agents will be transported, such notification to be provided appropriately in advance of any such transportation.

(c) (1) None of the funds authorized to be appropriated by this Act or any other Act may be used for the future deployment, [or storage, or both] *storage, or disposal* at any place outside the United States of—

(A) any lethal chemical or any biological warfare agent, or

(B) any delivery system specifically designed to disseminate any such agent,

unless prior notice of such [deployment or storage] *deployment, storage, or disposal* has been given to the country exercising jurisdiction over such place. In the case of any place outside the United States which is under the jurisdiction or control of the United States Government, no such action may be taken unless the Secretary gives prior notice of such action to the President of the Senate and the Speaker of the House of Representatives. As used in this paragraph, the term "United States" means the several States and the District of Columbia.

(2) None of the funds authorized by this Act or any other Act shall be used for the future testing, development, transportation, storage, or disposal of any lethal chemical or any biological warfare agent outside the United States if the Secretary of State, after appropriate notice by the Secretary whenever any such action is contemplated, determines that such testing, development, transportation, storage or disposal will violate international law. The Secretary of State shall report all determinations made by him under this paragraph to the President of the Senate and the Speaker of the House of Representatives, and to all appropriate international organizations, or organs thereof, in the event such report is required by treaty or other international agreement.

(d) Unless otherwise indicated, as used in this section the term "United States" means the several States, the District of Columbia, and the territories and possessions of the United States.

(e) After the effective date of this Act, the operation of this section, or any portion thereof, may be suspended by the President during the period of any war declared by Congress and during the period of any national emergency declared by Congress or by the President.

(f) None of the funds authorized to be appropriated by this Act may be used for the procurement of any delivery system specifically designed to disseminate any lethal chemical or any biological warfare agent, or for the procurement of any part or component of any such delivery system, unless the President shall certify to the Congress that such procurement is essential to the safety and security of the United States.

## APPENDIX

### DEPARTMENT OF THE ARMY—FISCAL YEAR 1971

#### SUMMARY BY MAJOR CATEGORY

[In millions]

	Total amount of fiscal year 1971 program	Less available financing	NOA requested authorization	Prior programs to be reauthorized	Appropriation requiring authorization	House		Senate Armed Services Committee	
						Change from request	Authorized	Change from House	Recommen- dation
Aircraft.....	\$294.5		\$294.5	\$2.4	\$296.9	—\$2.4	\$294.5	—\$2.4	\$292.1
Missiles.....	1,086.6		1,086.6	8.0	1,094.6	—8.0	1,086.6	—55.0	1,031.6
Tracked combat vehicles.....	206.2		206.2	1.0	207.2	—1.0	206.2	—24.0	182.2
Other weapons.....	68.2		68.2	1.0	69.2	—1.0	68.2	—1.0	67.2
R.D.T. & E.....	1,717.9		1,717.9	18.0	1,735.9	—88.0	1,647.9	—38.7	1,609.2
Military construction, SAFEGUARD.....	325.2		325.2		325.2		325.2		325.2
Family housing, SAFEGUARD.....	8.8		8.8		8.8		8.8		8.8
Total.....	3,707.4		3,707.4	30.4	3,737.8	—100.4	3,637.4	—121.1	3,516.3

DEPARTMENT OF THE NAVY—FISCAL YEAR 1971

SUMMARY BY MAJOR CATEGORY

[In millions]

	Total amount of fiscal year 1971 program	Less available financing	NOA requested authorization	Prior programs to be reauthorized	Appropriation requiring authorization	House		Senate Armed Services Committee	
						Change from request	Authorized	Change from House	Recommen- dation
Aircraft.....	\$2,518.4	—\$66.2	\$2,452.2	\$35.5	\$2,487.7	—\$35.5	\$2,452.2	—\$114.5	\$2,337.7
Missiles (Navy).....	975.5		975.5	7.5	983.0	—36.4	946.6	—14.2	932.4
Missiles (Marine Corps).....	27.6		27.6		27.6		27.6	—14.8	12.8
Naval vessels.....	2,578.9		2,578.9	150.0	2,728.9	+285.0	3,013.9	—737.0	2,276.9
Tracked combat vehicles (Marine Corps).....	48.7		48.7		48.7		48.7	—1.3	47.4
Other weapons (Navy).....	2.8		2.8		2.8		2.8		2.8
Other weapons (Marine Corps).....	4.4		4.4		4.4		4.4		4.4
R.D.T. & E.....	2,197.3		2,197.3	15.0	2,212.3	—15.0	2,197.3	—3.0	2,194.3
Total.....	8,353.6	—66.2	8,287.4	208.0	8,495.4	+198.1	8,693.5	—884.8	7,808.7

DEPARTMENT OF THE AIR FORCE—FISCAL YEAR 1971

SUMMARY BY MAJOR CATEGORY

[In millions]

	Total amount of fiscal year 1971 program	Less available financing	NOA requested authorization	Prior programs to be reauthorized	Appropriation requiring authorization	House		Senate Armed Services Committee	
						Change from request	Authorized	Change from House	Recommen- dation
Aircraft.....	\$3,514.3	—\$199.4	\$3,314.9	\$59.4	\$3,374.3	—\$59.4	\$3,314.9	—\$89.4	\$3,225.5
Missiles.....	1,580.1	—49.5	1,530.6	14.0	1,544.6	—39.3	1,505.3	—25.9	1,479.4
R.D.T. & E.....	2,909.7		2,909.7	18.0	2,927.7	—18.0	2,909.7	—191.7	2,718.0
Total.....	8,004.1	—248.9	7,755.2	91.4	7,846.6	—116.7	7,729.9	—307.0	7,422.0

CONGRESSIONAL ACTION ON AUTHORIZATION REQUESTS FISCAL YEAR 1964  
THROUGH PRESENT

Fiscal year	Budget request	Senate authorization	House authorization	Conference	Appropriated
1964.....	\$15,358,691,000	\$14,951,491,000	\$15,856,391,000	\$15,314,291,000	\$14,364,690,000
1965.....	17,185,300,000	17,040,140,000	16,914,800,000	16,976,620,000	16,722,391,000
1966.....	15,297,200,000	15,283,800,000	15,303,400,000	19,468,250,000	19,320,550,000
1967.....	16,946,859,000	17,170,059,000	17,858,049,000	21,404,459,000	21,057,559,000
1968.....	21,066,432,000	20,765,332,000	21,481,032,000	21,168,032,000	20,149,432,000
1969.....	22,385,052,000	21,341,738,000	21,636,964,000	21,625,750,000	18,491,041,000
1970.....	21,963,660,000	19,988,886,000	12,347,860,000	20,710,502,000	19,311,520,000
1971.....	20,271,489,000	19,242,889,000	20,237,489,000		

<sup>1</sup> Includes supplemental.

<sup>2</sup> Of this amount, \$350,000,000 to be derived by transfer from stock funds.

<sup>3</sup> Includes \$334,000,000 for SAFEGUARD military construction and family housing.

Notes:

During fiscal years 1964 and 1965 tracked combat vehicles were not subject to authorization action.

During fiscal years 1964, 1965, and 1966 the emergency fund under R. & O. was not subject to authorization action.

Authorization for other weapons was not required prior to fiscal year 1971.

### **INDIVIDUAL VIEWS OF MR. SCHWEIKER REGARDING C-5A PROGRAM**

The Fiscal Year 1971 Military Procurement Authorization Bill contains an unprecedented \$200 million request over and above our contracted obligations for the controversial C5A transport plane.

In my view, this request is one of the most important defense procurement issues Congress will face this year. This can be our opportunity to make a landmark decision—whether to bring our military procurement policies out of the horse and buggy era. The issue is whether we will turn down the \$200 million request and begin to exercise control over extravagant and wasteful defense procurement practices, or whether we will approve another government give-away and broadcast to all defense contractors that a blank check military spending policy remains in effect.

My amendment in Committee to delete this \$200 million from the bill was rejected by an 11-5 vote, and I will soon bring the issue before the full Senate. Thus it is imperative that all Senators be aware of the enormous, and in my view, unwarranted and unwise precedent Congress will be setting if the money is authorized.

This is a classic case of a corporation bidding in low to get a contract, and then handing the final inflated bill to the government and the taxpayers to pay when the contract price and performance cannot be met by the successful bidder.

Lockheed Corporation won the contract with a bid in 1965 of \$1.8 billion, nearly a quarter-billion dollars less than the bid of the Boeing Company whose design was recommended by the Air Force. A recent report by the Securities and Exchange Commission dealing with Lockheed and the C5A concluded that Lockheed purposely lowered its bid unrealistically to insure it would get the contract.

Many of the facts and figures are a matter of public record, and do not need detailed exposition here. Even though the total buy has been reduced from 120 to 81 planes, the cost-overflow already has been estimated at more than \$2 billion above the original contract price. And if the wing design should have to be re-done, as scientific reports indicate may be required, the cost could easily escalate by many millions more.

Lockheed is in financial trouble, and on March 2, 1970, wrote Deputy Defense Secretary David Packard to request approximately \$641 million as a "contingency fund" for contract disputes on four major projects, including the C5A. Not long afterwards, the Defense Department admitted that the \$200 million request in this bill was not just the first increment of the "contingency fund," undesirable in itself, but rather was a "progress payment" to enable Lockheed to continue production under their existing C5A contract. This, I think, is worse.

I am against spending one cent above the contract price merely to subsidize corporate inefficiency or contract mismanagement. I believe Congress must use this issue to draw the line. Denial of this request for \$200 million will serve notice loud and clear that although both government and industry have been sloppy in the past, we are going to demand efficient performance by contractors and strict adherence to contract prices and specifications in the future.

An historical perspective is helpful to understand why this \$200 million bail-out request is such a symbolic issue, and why this line must be drawn.

Ever since World War II, military procurement policies have fundamentally not changed. A blank check has been given to military spending without the careful scrutiny and cost accounting demanded of other foreign and domestic expenditures. Until recently, military appropriations have breezed through Congress with little debate, and have received, at best, only routine analysis within the Executive's Budget Bureau.

Weapons system technology has leapfrogged, and the military procurement process hasn't caught up. With the growing sophistication and complexity of military systems today, costs have skyrocketed, which means we can no longer afford haphazard buying practices for the systems we want, and we can no longer afford to buy systems that may not work or that may not be needed.

Another antiquated and wasteful practice which cannot be permitted with today's costs is allowing production to commence before research and development is completed. If production equipment must be changed to incorporate the results of the final stages of R&D, it is obvious that original contract prices will jump dramatically. But, too often, Congress initially authorizes development of a defense system at a moderate price, when, if the final price tag had been known, such initial authorization would not have been given. Then, once millions are already expended, we have to either approve the cost overruns, or throw the initial money down the drain. More often than not, we yield to this financial blackmail, and pour millions more into the project to "protect" our initial investment. Only the contractors who bid in low in the first place gain, and ethical and responsible bidders are punished.

Congress can no longer allow itself to be lured by defense contractors into approving systems at low prices, and the taxpayers can no longer afford to pick up the tab for cost overruns.

Deletion of the \$200 million item, and official Congressional refusal of Lockheed's and the Defense Department's request for this new kind of government subsidy can set the proper tone for military procurement policy for some time to come. The "buy-in" and government "bail-out" that has occurred with the C5A is perhaps the most glaring



example of the inadequacy of our military procurement system. But, there are many other contracts with similar drawbacks. Holding the line at this time can have a healthy influence on all other existing contracts, and serve as a deterrent against unrealistically low bids on all future contracts.

Only if Congress is willing to take this step now can the public have any real confidence in our commitment to protect their pocketbooks. And only if Congress is willing to draw the line at this time will other contractors be on notice that buy-in bids, over-optimism, and poor management will no longer be rewarded, or winked at, but will be subject to the most searching and thorough investigation, and will be paid for by the company and its own stockholders, instead of by the government and its taxpayers.

This amendment does not affect the \$344.4 million in the bill requested by the Department of Defense for as yet unfunded obligations under the contract. It does signal a halt to government rewards for inefficient production, and the beginning of the government use of sound business practices in its defense procurement. It urges the setting of an important precedent which will benefit all taxpayers.

To pass this amendment is to take the first real step toward reversing our World War II military procurement climate that so strangles our national budget and our weapons systems selection process today.

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